DOCUMENT RESUME

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By-Murphy, George M.
One Down, Two to Go!
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With funds from the Elementary and Secondary Education Act of 1965 (ESEA Title III), the Cooperative Educational Services Center of Winsted, Connecticut is seeking to (1) initiate a pupil services team-work approach, and (2) provide an opportunity for greater teacher-awareness of the significance of the behavior of children. Complete statistical data, narrative reports, and an evaluation of the project are included. (KP)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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"One Down, Two to Go!"

END OF BUDGET PERIOD REPORT
August 1, 1966 - June 30, 1967
Project No. 66-2098
Grant No. 1-7-662098-0099 Connecticut

By
George M. Murphy, Exec. Directo

Cooperative Educational
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EA 003 079

"One Down, Two to Go!"

END OF BUDGET PERIOD REPORT

August 1, 1966 - June 30, 1967
Project No. 66-2098
Grant No. 1-7-662098-0099 Connecticut

By
George M. Murphy, Exec. Director

Submitted By

WINCHESTER BOARD OF EDUCATION
(GRANTEE)
560 Main Street
Winsted, Connecticut 06098

CG 003 079

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STATISTICAL DATA
AS SUBMITTED TO FEDERAL GOVERNMENT

The Original Report was filed on Federal Forms. Included here is all the data, as contained on the original report, leaving out the blank spaces that were not necessary for us to fill in.

ESEA TITLE III STATISTICAL DATA

ELEMENTARY AND SECONDARY EDUCATION ACT OF 1965 (P.L. 89-10)

SECTION A - PROJECT INFORMATION

1. Reason for Submission of This Form - End of Budget Period Report
2. Project Number - OEG 1-7-662098-0099
3. Major Description of Project: Innovative
4. Type of Activity: Operation of Program
5. Name of Project Director:

   a. Mr. George M. Murphy
   Cooperative Educational Services Center
   Box 528
   Winsted, Connecticut 06098
   Phone: 203-379-8583

6. Name of Person Authorized to Receive Grant (1966-67):

   a. Mr. Bernard C. Dullea, Superintendent of Schools
   Winchester Board of Education (Grantee)
   560 Main Street
   Winsted, Connecticut 06098
   Phone: 203-379-5503

7. Date Submitted: September 26, 1967
8. Congressional District Served: 6th
9. Total Number of Counties Served: 2

   Total Number of LEA's Served: 6

   Total Estimated Population in Geographic Area Served: 20,100

10. Latest Average Per Pupil ADA Expenditure of Local Education Agencies Served:

    $ 543.68

    State Average Cost Per Pupil: $554.00

SECTION B - TITLE III BUDGET SUMMARY FOR PROJECT:

1. End of Budget Period Report - Grant #OEG-1-7-662098-0099 - 8-1-66 to 6-30-67

ESEA TITLE III STATISTICAL DATA (continued)

SECTION C - SCHOOL ENROLLMENT, PROJECT PARTICIPATION DATA & STAFF MEMBERS ENGAGED

1.

		Kinder-garten	Grades 1-6	Grades 7-12	Other	Totals	Staff Members Engage In In-Service Training
A. School Enrollment in Geographic Area Served	(1) Public	401	2225	1150		3776	
	(2) Non-Public	23	365	850		1238	
B. Persons Served By Project	(1) Public	5	234	66	10	315	60
	(2) Non-Public		31	37	2	70	10
C. Additional Persons Needing Services	(1) Public	11	192	158		361	150
	(2) Non-Public		23	15		38	10

2. Total Number Of Participants By Race: Negro - 8, Other Non-White - 2, Total - 10

Non-White Population in area approximately 0.3%

3. Rural/Urban Distribution of Participants Served or to be Served by Project

	Rural		Metropolitan Area		
Participants	Farm	Non-Farm	Central City	Non-Central City	Other Urban
Percent of Total Number Served	3.5	48.5			48.0

SECTION D - PERSONNEL FOR ADMINISTRATION AND IMPLEMENTATION OF PROJECT

1. Personnel Paid By Title III Funds

Type of Paid Personnel	New Staff Hired For Project Full Time	Part Time	Full Time Equiv.
A. Administration/Supervision		1	.5
B. Pupil Personnel Services	5.5		
C. Other Professional	6		
E. All Non-Professional	4		

2. Personnel Not Paid By Title III Funds

C. Pupil Personnel Services	3.5		
D. Other Professional	3		
E. All Non-Professional	2		

ESEA TITLE III STATISTICAL DATA (continued)

SECTION E - NUMBER OF PERSONS SERVED OR TO BE SERVED AND ESTIMATED COST DISTRIBUTION

MAJOR PROGRAM OR SERVICES	TOTAL NUMBER SERVED OR TO BE SERVED K	1-6	7-12	NON PUBLIC SCHOOL PUPILS INCLUDED	ESTIMATE COST
1. Instruction and/or Enrichment					
A. Language Arts (English Improvement)	6	110	90	32)	51,685.
B. Remedial Reading		133	72	46)	
C. Special-Physically Handicapped		15	7	4)	9,542.
D. Special Mentally Retarded		14	6	5)	
E. Special-Disturbed (Incl. Delinquent)		12	38	11	9,108.
2. Personal Services					
A. Medical/Dental (Speech & Hearing)	5	160	43	80	23,637.
B. Social/Psychological	5	210	116	65	33,266.

PROPOSED BUDGET SUMMARY/EXPENDITURE REPORT OF FEDERAL FUNDS
TITLE III, ELEMENTARY AND SECONDARY EDUCATION ACT OF 1965 - SUPPLEMENTARY CENTERS AND SERVICES PROGRAM

Name & Address of Agency (Winchester Bd. of Education)	Project Number	Grant Number	State
Cooperative Educational Services Center, Box528, Winsted, Conn.	66-2098	OEG-1-7-662098-0099	Connecticut
PART I - EXPENDITURES	Final Expenditure Report	Beg. 8-1-66	End: 6-30-67

Expenditures Accounts		Expense Classification								
Functional Classification	Acc't No.	Salaries Prof.	Salaries Non-Prof.	Contracted Services	Materials & Splies.	Travel	Equipment	Other	TOTAL	Negotiated Budget
Administration	100	7,125.00	3,375.12	135.25	437.56	1,253.44		73.01	12,399.38	$12,180.00*
Instruction	200	47,507.50	5,337.22		2,818.53	2,267.91		176.70	58,107.86	90,935.00
Health Services	400	21,734.91	958.40			465.50			23,158.81	30,150.00
Operation of Plant	600		1,155.00		1,294.64			996.51	3,446.15	3,465.00
Maintenance of Plant	700							109.60	109.60	170.00
Fixed Charges	800							4452.52	4,452.52	3,148.00**
Capital Outlay (Equipment Only)	1230						25,564.07		25,564.07	16,729.00***
TOTAL		76,367.41	10,825.74	135.25	4,550.73	3,986.85	25,564.07	5,808.34	127,238.39	156,777.00

*Change in Travel Allowance per Contract change dated 6-21-67
**Funds transferred per Grant Letter 6-14-67
***Funds transferred per Grant Letter 10-14-66

ESEA TITLE III - SUMMARY - AUTHORIZATIONS, EXPENDITURES, AND BALANCES OF TITLE III FUNDS:

Budget Period

Beginning: 8-1-66 Ending: 6-30-67 Final Expenditure Report

ITEMS	PART I - EXPENDITURES OTHER THAN CONSTRUCTION	TOTAL
1. Amount Authorized For Expenditure For Budget Period Shown Above	$ 156,777.00	$ 156,777.00
A. Unexpended Funds From Grant Awarded for Prior Budget Period ---	-	-
B. Approved Grant Award For Budget Period Shown Above $156,777.		
C. Total Funds Authorized For Budget Period Above 156,777.		
2. Expenditures During Budget Period Shown Above	$ 127,238.39	$ 127,238.39
3. Unexpended Balance of Funds Authorized For Expenditure During Budget Period Shown Above	$ 29,538.61	$ 29,538.61

CUMULATIVE TOTALS - GRANT AWARDS AND CASH RECEIVED SINCE INCEPTION OF PROJECT

ITEMS	CUMULATIVE TOTAL TO DATE
1. Grant Awards	$156,777.00
2. Cash Received	156,777.00

THIS FISCAL REPORT IS CORRECT AND THE EXPENDITURES INCLUDED HEREIN ARE DEEMED PROPERLY CHARGEABLE TO THE GRANT AWARD	Robert O'Connor (Signed)	9-26-67
	George M. Murphy (Signed)	9-26-67

PART II

NARRATIVE REPORTS

Cooperative Educational Services Center
Box 528, Winsted, Connecticut
Project No. 66-2098 Grant No. OEG-1-7-662098-0099 Connecticut
End of Budget Period Report - August 1, 1966 to June 30, 1967

NARRATIVE REPORT

PART II

1. Objectives:

   a. To initiate pupil services team work approach.

To assist in prevention and correction of educational disabilities, identifying existing problems, establishing corrective or preventative programs, and to assist present staff in the identification of emotional problems in the early school years.

The pupil services team work concept has been implemented, in so far as staffing difficulties would allow, to the point where each school in the area has a member from each one of the separate services in the Center as part of its team, along with the principal and the teacher of the child referred. A large number of cases, much larger than had been expected, have been referred for service and many more than we had expected to handle are being worked with at the present.

Below please find the summary of our activities by categories:

	Referrals	Active Cases	Active for Multiple Service
Public Schools	676	315	148
Non-profit Private Schools	108	70	12
Total	784	385	160

Referrals: -

Source	
Principal & Teacher	670
Pupil	9
Family	26
Psychologist	16
Comm. Agency	6
Others	82

Problem as Stated	
Behavior	187
Personality	244
Underachiever	464
Other	63

Action taken: -

Structured Interviews w/	
Pupil	561
Parents	251
Significant Others	44

Conferences & Consultations	
Principal & Teacher	914
Consultant Psychiatrist	129
Consultant Psychologist	74
Community Agency	72
Significant Others	271

NARRATIVE REPORT
PART II

1. Objectives continued:

Action	
Service (Ther., Couns.,etc.)	3,276
Special Observations	97
Report to Agencies.	8
Home Visits.	88
Conference Phone Calls	102

Referral from CESC To	
Psychiatrist	8
Psychologist	10
Other School Service	4
Family Child Agency.	3
Juv. Court	2
Public Welfare	2
Health Agency	7
Other.	1

b. Provision of an opportunity for greater awareness, on the part of all teachers involved, of the significance of children's behavior.

The teachers in all the schools in the area were qeried as to the type of inservice education offerings they would be interested in. Their reactions, as well as the obvious needs of the area professional publics, dictated the structure of the inservice program that finally evolved, as listed below. Each program was evaluated anonymously by each participant on a 1-5 scale (1 being very poor and 5 being very high) with the overall mean rating for all 13 sessions being 4.41 (very high).

	Rating
-Child Study Techniques - Part I	4.10
-Child Study Techniques - Part II	4.12
-The Perceptually Handicapped Child - Part I	4.40
-The Perceptually Handicapped Child - Part II	4.68
-The Perceptually Handicapped Child - Part III	4.64
-Evaluative Techniques in the Classroom	4.25
-Reading Skills - Part I	4.59
-Reading Skills - Part II	4.38
-Reading - Primary Levels	4.42
-Specialized Materials used by Center - and how they may assist teachers	4.42
-Speech and Hearing Problems	4.92
-Dependency and Independency Needs of Children	4.37
-The Team Approach - A Demonstration	4.13

Two of the area schools have indicated interest in the Center's willingness to provide specialized inservice programs, and at least one of these schools will make released time available for its staff to participate in a coordinated program of relearning up to date instructional, and class based diagnostic techniques.

The inservice education program had been poorly attended in the beginning, with competition coming from courses which teachers are taking, local administrative meetings, after-school fatigue, possibly a poor quality of program, and possibly general apathy. But, attendance picked up toward the last few sessions, and with released time for some programs in the future, it is felt that these programs will reach a wider audience this coming year.

The publication of a monthly newsletter, "Ripples from the Center" was begun in February of 1967, and was received by the school staffs with mixed reactions, which ranged from total rejection (some administrators) to flag waving enthusiasm(some teachers). The general feedback was positive. (Copies of all issues published to date have been filed with Program Development and Dissemination Branch).

In the beginning, the specialized learning resources and behavioral sciences library had small reaction from the area staffs, except for those involved in thesis preparation or individual course work. However, there is evidence of a growing awareness,on the part of local professionals, of the variety of materials available and the Center has received requests for correlated sets of materials relating to specific subjects.

The Center is also planning a go-box distribution schema whereby specialized instructional materials, for a particular grade or study area, can be assembled and put in an open wooden box (painted bright green) with a rope handle, and can be left in the various classrooms for periods of time on the request of the teacher. Lists of available topics and areas of interest will be put into the teachers' hands, and all they will need to do is request the particular category. Records of requests made and filled will be kept and made part of the evaluation report next year.

Estimated cost for the preliminary evaluation, including days spent testing with the WRAT and analysis of the random sample, $575.00.

Estimated cost of the evaluation in staff time and statistical analysis for the end of grant period report, $900.00.

2. Project endeavors in which the anticipated results have exceeded expectations.

The existence of many speech and hearing problems were known in the general area, and to specify more closely the limits of the involvement, at the beginning of this year the speech and hearing staff of the Center conducted a rough screening of all of the children in grades one through eight in the six town area. Two of the elementary schools had an audiometer on site with their own staff for doing hearing testing, and these children were not entered into the hearing analysis.

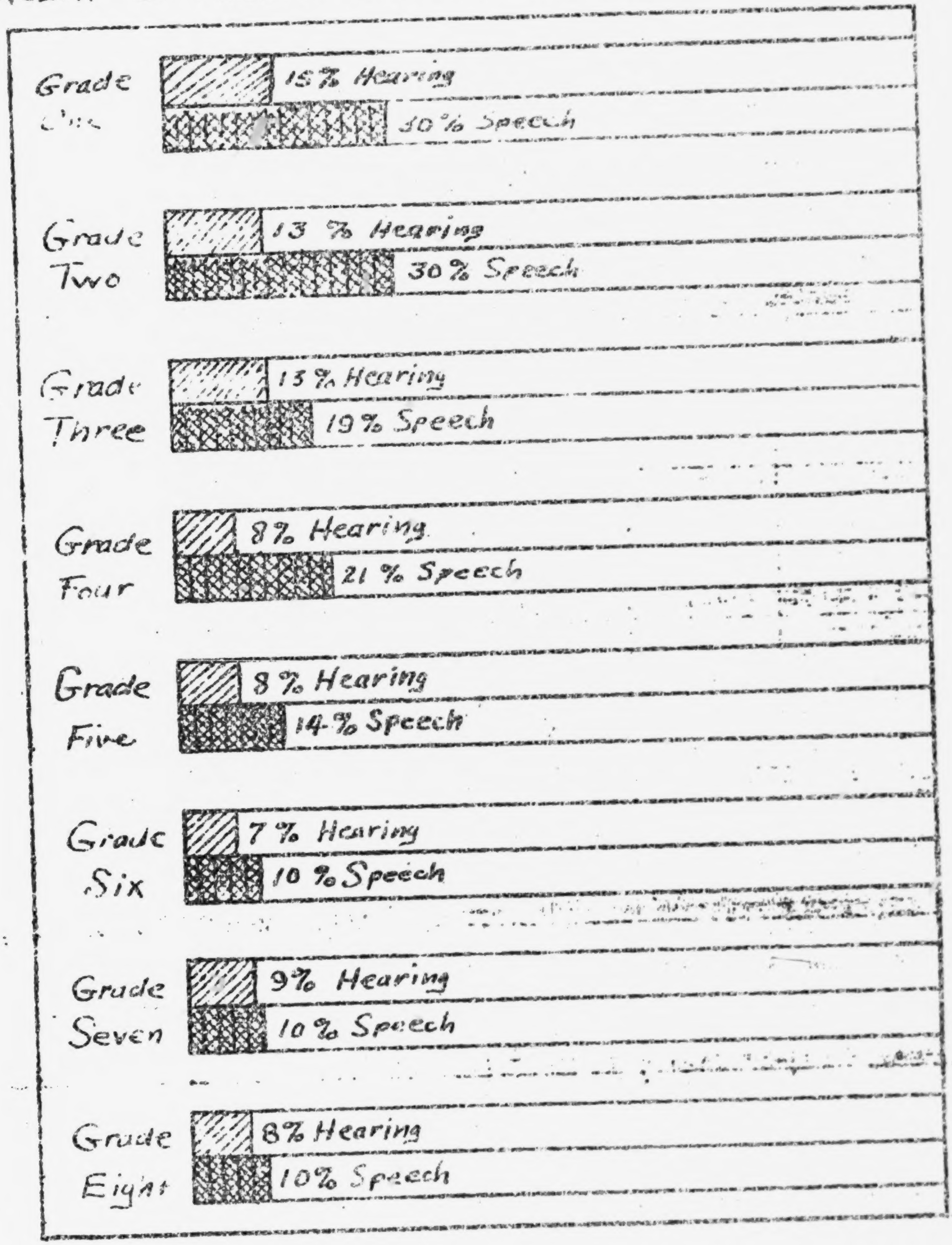
The results were astounding! Please see the attached chart for relative percentages of problems found. Overall, approximately 25% of children (no double counting) were found to have some significant speech or hearing problem. This is a major reason for asking for an additional speech and hearing therapist for next year.

In those cases where we have been able to become intensely involved, the improvement in the functioning of the child has usually been significantly greater than we had a right to expect, at least from what we are able to tell from observation and from teacher reports. (See teacher comments, Evaluation Section).

Speech and Hearing Survey Results - Area Wide

Barkhamsted - Colebrook - Hartland - New Hartford - Norfolk - Winchester

PERCENT OF PROBLEMS FOUND re: TOTAL GRADE POPULATION



NATIONAL NORM FOR Speech & Hearing

PROBLEMS = 5%-8%

Completed in December, 1966-67 Academic Year

Cooperative Educational Services Center
Box 528, Winsted, Connecticut
Project No. 66-2098 Grant No.OEG-1-7-662098-0099 Connecticut
End of Budget Period Report - August 1, 1966 - June 30, 1967

NARRATIVE REPORT
PART II

Results which have not measured up to expectations.

The attendance at the in-service education meetings, the Regional Advisory Council meetings, the open house sessions for various groups, and the real lack of complete use of the behavioral sciences library, have all failed to come up to our initial expectations. The Regional Advisory Council has undergone a structural change, and the council now has a core of vitally interested area agency workers. It has re-established itself on a semi-permanent basis, with the Chairman and officers elected by the members and serving for a full year's term, rather than rotating every two months.

As stated above, there has been some improvement in the number of requests for material from the consultative staff of the Center, and several of the recent programs given in the area of the perceptually handicapped have seemed to have sparked more interest on the part of the teachers. (Reaction reports from teachers are included in the Evaluation Section of this report).

3. Effect of the project on the agency.

It has been slow in coming, but the project has shown so far, at least from observable signs, that it is possible to meld the various professional groups into a team unit. In the beginning there were four groups of professionals functioning almost independently and not communicating too much to each other. The change has been slow, but it's beginning to appear that what is happening is a break down of the traditional professional walls and an increasing awareness on the part of the consultatnts that all of us who become involved with children are child workers, who may or may not be psychologists, social workers, speech and hearing therapists or learning consultants. There appears to be an increasing awareness of the strengths and abilities of the others on the staff and a greater degree of willingness to work with and share common problems with other members of the team.

The team approach, as was originally conceived, was based on the anticipation that this might happen. By the mutual sharing that appears to be going on, it seems that a greater focus of professional talent and skill can be brought to bear on the problems of an individual child. (Please see Evaluation Section). It is felt that in these cases where the team is able to function effectively with each other, the movement of the child along the direction of positive growth appears to be greater than one would expect.

4. Cooperating Agencies.

Charlotte Hungerford Psychiatric Clinic
Crippled Children, Clinic of Torrington
State Department of Health, Hartford
Community Resources Committee (all Social Services Agencies, Torrington area)
Vocational Rehabilitation, Hartford and Torrington
Bureau of Child Welfare
Easter Seal Campaign
Visiting Nurses' Association - Winsted, Barkhamsted and New Hartford
Winchester Public Schools
St. Anthony's School, Winsted
The Gilbert School, Winsted

NARRATIVE REPORT
PART II

4. Cooperating Agencies continued.

New Hartford Public Schools
St. Mary's School, New Hartford
Recollect Seminary, Norfolk
Norfolk Center School, Norfolk
Laurel School, Norfolk
Evergreen School, Norfolk
Hartland Public Schools
Colebrook Public Schools
Regional #7, Winsted
Barkhamsted Public Schools

Many consultations were held with the above agencies to eliminate the possibility of duplication of effort. By working quite closely with them on matters of common concern, we were able to set up informal sharing of services on mutual cases. This team approach with other agencies drew many favorable comments from parents and from the other agency staff who are extremely happy to see others working in the field, especially from a school base.

The following agencies have participated in the Regional Advisory Council.

Girl Scouts of America
Catholic Family Services
Children's Services of Connecticut
Y.M.C.A., Winsted
Housatonic Valley Psyciatric Center
Church of Christ, Winsted
Methodist Church, Winsted
St. James Church, Winsted
First Congregational Church, Winsted
Church of Christ, Norfolk
Colebrook Congregational Church
Methodist Church, Pleasant Valley
North Congregational Church, New Hartford
St. Mary's Church, New Hartford
St. Joseph's Church, Winsted
Adult Probation, Winchester
New Hartford Public Health Nurses Assn.
Regional Home Makers Service

After a considerable amount of time spent arguing about mass psychological testing, which they were assured we were not doing but operating only on a referred basis, the agencies involved in the Regional Advisory Council have requested that the C.E.S.C. staff present the picture of our operation, one segment at a time. Because of this, for the last several RAC meetings, several of the consultants have appeared before the Council describing their particular phase of the operation and how it dovetails with the other subsections. For those who have attended, these have usually been fairly well received. Unfortunately, the attendance at any one of these meetings averages seven to ten agencies out of a possible membership of over sixty agencies.

Cooperative Educational Services Center
Box 528, Winsted, Connecticut
Project No. 66-2098 Grant No. OEG-1-7-662098-0099 Connecticut
End of Budget Period Report - August 1, 1966 - June 30, 1967

NARRATIVE REPORT
PART II

5. Dissemination of Project Information.

An article, a column, or a notation approximately once a week or, at the least, once every other week, went into the local newspapers. Copies of these news releases as printed have already been sent to the Programming Branch. In addition, the Director spoke over WTIC radio for a three part series on program Americana. He has also been broadcast on Voice of America and has appeared on WTIC television in an interview format describing the work and facilities to be found in the Center. Copies of these tapes have already been sent to Programming Branch. Other methods for dissemination have been through local publication of a manual, "The Big Difference in Reading, Teacher Effectiveness", distributed to all the schools - through periodic team meetings with the local educational staff in each of the schools - through appearance at almost every PTO in the six town area- through the beginning of publication of a newsletter which goes directly to each professional staff member, each board of education member, and each person on the mailing list - through an article in ADVANCE magazine describing the services of the Center (copies of which have already been submitted to Programming Branch) - through open house sessions at each of the schools describing the utility and the function of the mobile units - through monthly meetings of the Board of Directors of the C.E.S.C. (copies of minutes forwarded to Programming Branch) - through the monthly Regional Advisory Council meeting which has been noted by its obvious non-attendance (copies of minutes forwarded to Programming Branch) - through visitation by the Director and other staff members with and without the mobile units to other school systems, other States, to tell the story of the project.

The following is a list of unsolicited requests for information, received through the mail:

County of Los Angeles
Superintendent of Schools
Los Angeles, California 90006

Conoma County Schools
Santa Rosa, California 95401

Sallisaw Public Schools
Sallisaw, Oklahoma 74955

DeKalb County School System
Atlanta, Georgia 30316

Dupont-Fort Lewis Schools
Dupong, Washington 98327

Riley Local School
Fremont, Ohio

Board of Education
Paterson, New Jersey 07505

Tri-County Educational Research Foundation
Peoria, Illinois 61614

Kern County Supplementary Educational
Center
Bakersfield, California 93301

Tuscola Intermediate Board of Education
Caro, Michigan

Dover Special School District
Dover, Delaware 19901

Dexter Public Schools
Dexter, Missouri

Poway Unified School District
Poway, California 92064

Gulf Schools Supplementary Education
Center
Pearland, Texas 77581

NARRATIVE REPORT
PART II

The following is a list of unsolicited requests for information, continued:

Nebo School District
Spanish Fork, Utah

Cooperative Educational Service Agency
Chippewa Falls, Wisconsin 54729

Connecticut School Development, Inc.
410 Asylum Street
Hartford, Connecticut

Upward Development of Rural Youth
Room 136 - Wells Library
Maryville, Missouri 64468

School Dist. of University City
University City, Missouri 63130

Fairbanks North Star Borough School Dist.
Fairbanks, Alaska

SE Indiana Educational Service Unit
2525 California Street
Columbus, Indiana 47201

Stamford Public Schools
151 Broad Street
Stamford, Connecticut

The number of visitors from outside the project area to the Center is estimated to be about forty-six. The estimated cost of such dissemination is $570.00.

6. Methods of carrying on project without Federal support.

Recent action by the Connecticut General Assembly (the State Legislature) has made a true intermediate legal educational agency a possibility under Connecticut Public Act 160. The new agency would be empowered, under the terms of the sponsoring legislation, "to provide special services, programs or activities to enable such boards to carry out the duties specified in the general statutes. Such arrangements may include the establishment of a committee being determined by agreement of the cooperating boards. Such committee shall have the power, in accordance with the terms of the agreement, to receive and disburse funds, employ personnel, enter into contracts and otherwise provide the specified programs, services and activities. Personnel employed by any such committee shall be subject to the provisions of the general statutes applicable to teachers employed by the board of education of any town or regional school district."

A study group composed of representatives from each of the boards of education participating in the Center has been meeting and is meeting now to set up a viable organization which hopefully will assume the responsibilities and program of the Center, as a legally established intermediate educational agency, with authority and responsibility truly shared across all six towns.

If the new cooperative comes into legal existence, it is felt that it will be able to take advantage of the new support legislation, for special services, also recently passed and signed into law, with a year's lead time needed for budgetary considerations - (State support legislation is reimbursable, post payment, not prepayment as Title III, and the town budgets must reflect prior expenditures through the Boards of Education before reimbursement from the State can take place. This requires a minimum of at least a year's advance notice.

NARRATIVE REPORT
PART II

New England, with its conservative tradition at times is very slow to make up its mind. This section of rural New England is no different. Therefore, it is hoped that the three year time limit for project support by the Federal Government might possibly be extended to five years. It is theestimate of the Board of Directors and the Director of the project that it will take five years minimum to negate the resistance of the local populace in expending monies for this "new" project in education. With a five year time span, total Federal support continuing at the same level for the next two years, and an increasing amount of local participation after the three year period for the two years following, it is felt that at the end of the five year period, with anticipated state reimbursement, the project would be selfsupporting, up and running on its own feet.

The problem of possible withdrawal of Federal funds has been discussed at length with each of the Boards of Education and they continue to discuss the possibility of local funding and local support, especially with reimbursement from the State Department for similar kinds of special purposes.

Because of the high cost of such specialized services, due in no small part to the high salaries required to obtain qualified competent specialists, is also felt that unless there is an extension beyond the three year time limit to the five year limit (suggested), the project might very well not receive the kind of local support that it requires to continue in existence.

The approximate cost of the project overall to the local school systems will run between $35.00 and $45.00 per child enrolled. If one considers this region wherein we operate as one large system, the above costs are consistent with expenditures for pupil services departments in larger school systems.

7. List costs for budget period this narrative report covers:

$213,782.52	Total Cost
40,197.40	Total non-Federal support.
46,346.73	Total Federal support other than Title III, P.L. 89-10.
127,238.39	Total Federal support under Title III, P.L. 89-10.

PART III

EVALUATION

EVALUATION OF PROJECT 66-2098
PART III

A. Because of staffing problems and minor organizational difficulties at the beginning of the year, the Wide Range Achievement Tests, Random Sample, to be obtained in October of this '66-'67 school year was not attempted. Instead, a mid-year Random Sampling, as specified in the original grant proposal, was obtained, as was an end of the year sample in early May. In early October, a beginning of the year Random Sample, using similar format, will also be obtained. This will present a full year's base line for comparison of achievement data. With appropriate adjustments, as seen on page two of the enclosed copy of the mid- and end year WRAT norms, an effective comparison can be made across the six town area on the achievement of children referred, with the achievement of the universe of children wherein they function.

Basic statistical compilation of test data available from the referred group, as compared with the control group (Random Sample) on the gross measures of Reading, Spelling and Arithmetic as measured on the WRAT are as follows:

	Control Group	Referred Group
Reading	2.2	4.6*
Spelling	5.7	2.2
Arithmetic	4.4	3.0
	N=300	N=143

Data reported is mean gain score, over all students, in months, and reflects the participation of 143 students in the referred group who had at least two evaluations each.

It would appear that the average child referred for service, regardless of the type of service for which he was referred, gained considerable ground in reading and language arts, and did not function as well in the mechanical and rote areas, as those not in the referral population.

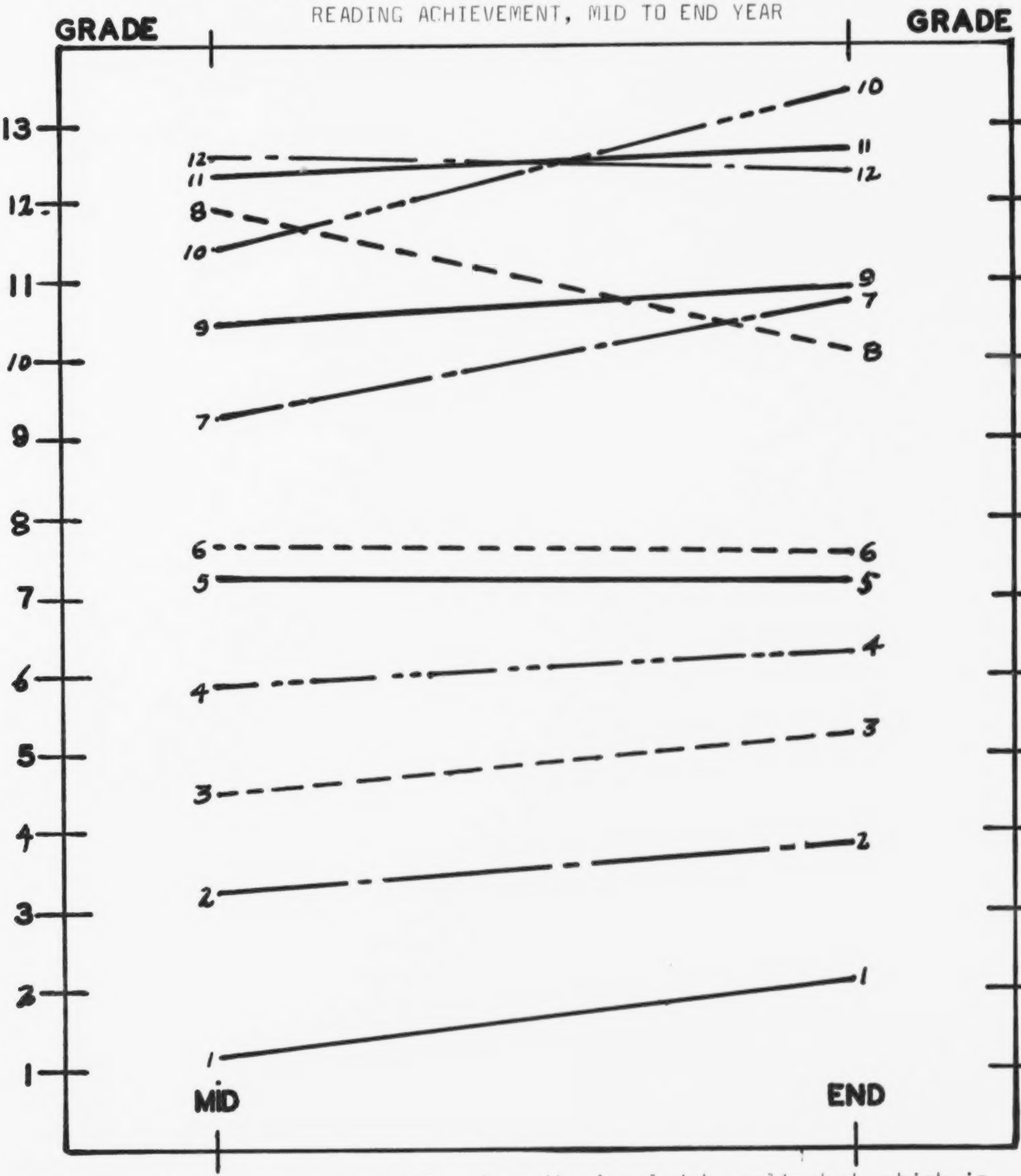
This is not strange, however, for the majority of the referred population were in academic difficulty prior to becoming involved with the Center. The contention here is that without specific intervention, the referred children probably would have fallen further and further behind - especially in communications skills, and now they at least have a chance to begin to catch up.

Figure I, included here, is a representation of the change in Reading achievement, by grade, of the random sample taken at mid and end year, and shows some interesting breaks and inconsistencies. One may conclude that the sample may be an inaccurate one, but a more interesting hypothesis might be that the variability in the sample may be caused by children dropping out at the various expected places along the way, until the picture at the higher levels in reality represents a population more school oriented (they survived more or less by choice) than those at the lower levels (mandatory school attendance provisions). The same situation may be true in the mechanistic areas - Spelling and Arithmetic as seen on Figures II, and III.

EVALUATION OF PROJECT 66-2098
PART III

FIGURE I

CHANGE IN LOCAL REFERENCE POPULATION IN READING ACHIEVEMENT, MID TO END YEAR

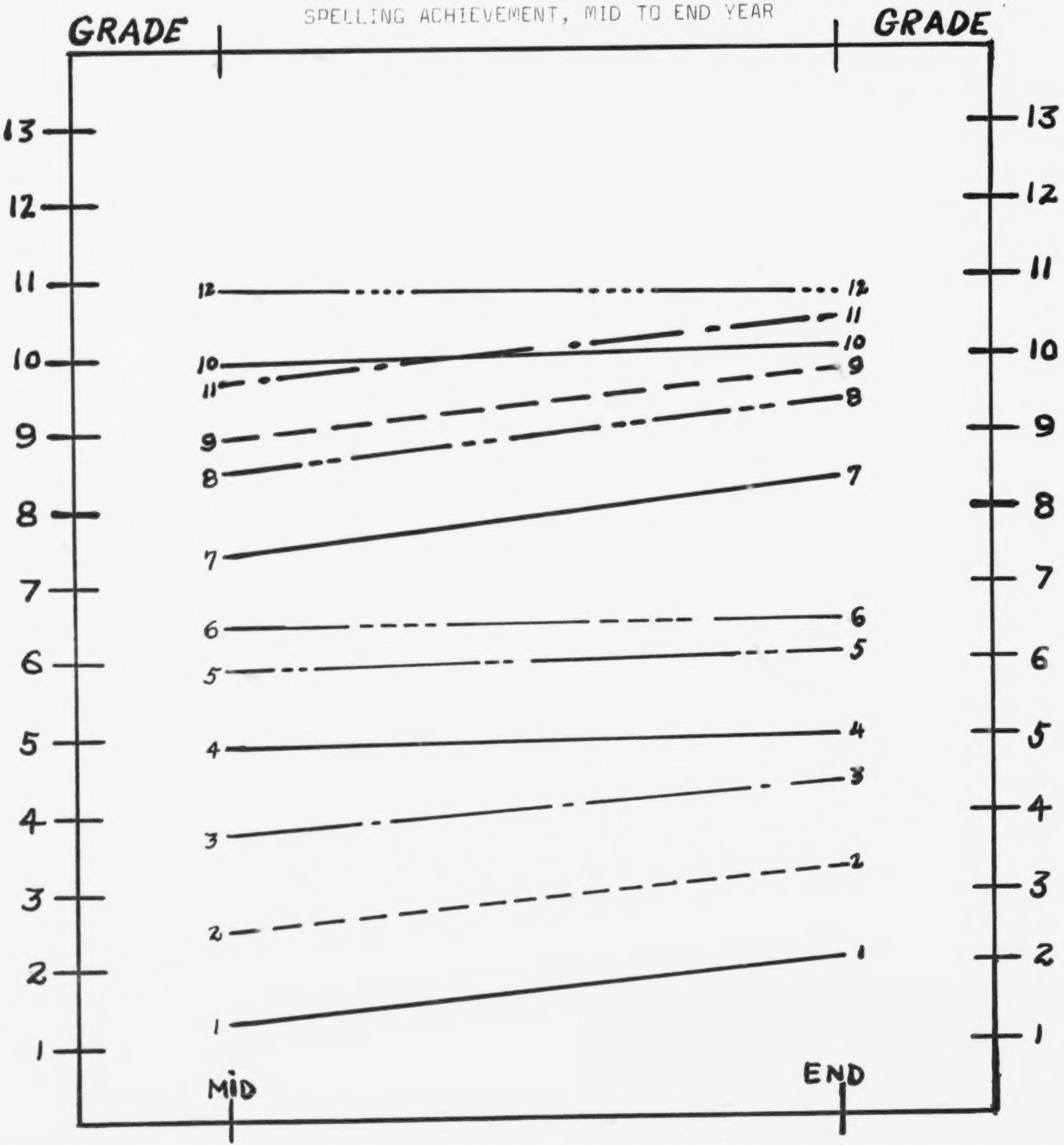


Another interesting speculation from the local data collected, which is consistent with the recently completed International Study in Mathematics Education, is that even compared with U. S. National Norms in Arithmetic achievement, it

EVALUATION OF PROJECT 66-2098
PART III

FIGURE 11

CHANGE IN LOCAL REFERENCE POPULATION IN
SPELLING ACHIEVEMENT, MID TO END YEAR

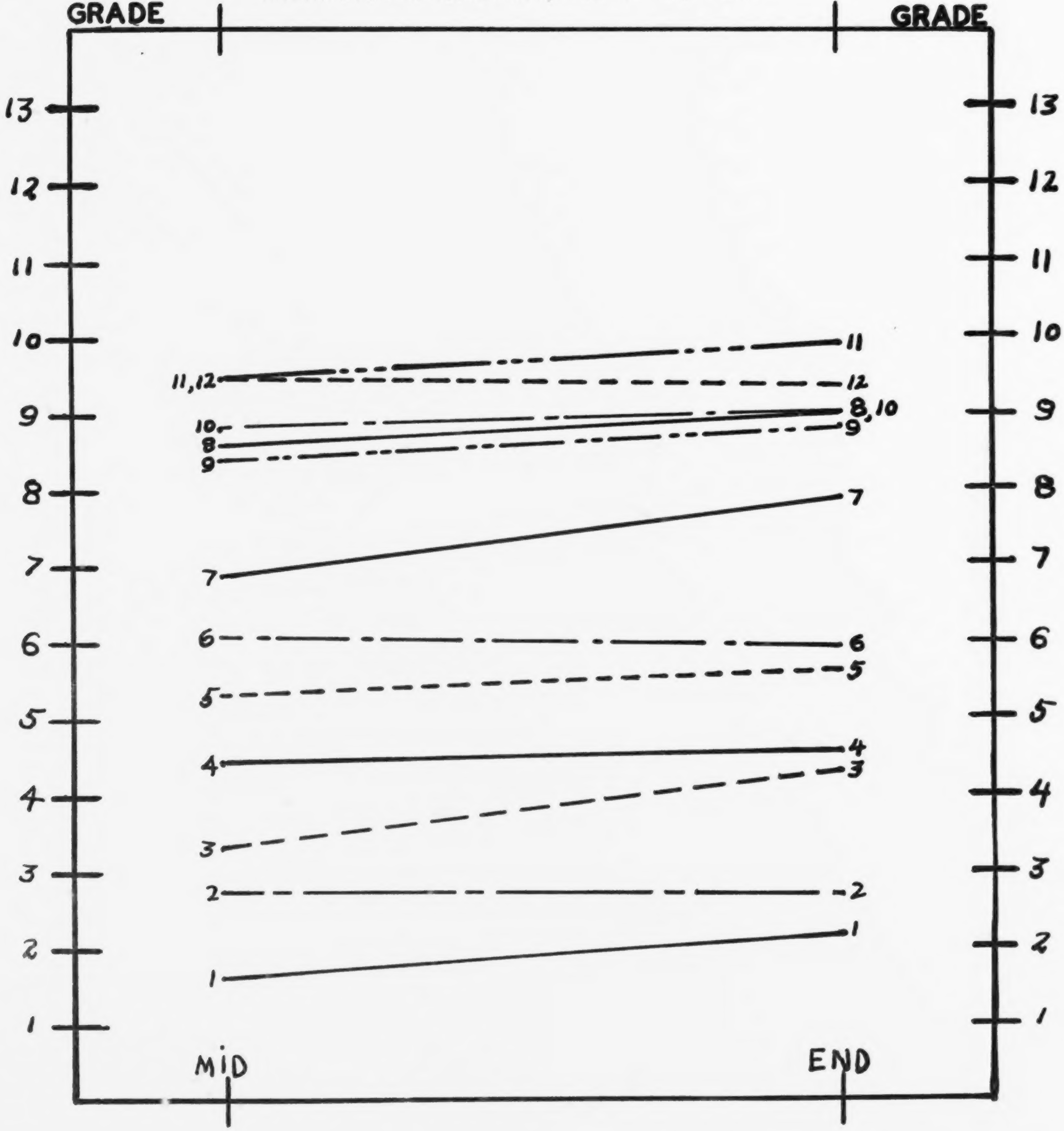


appears that in this area, effective Mathematics instruction, on the average, ceases at about Grade 9.

EVALUATION OF PROJECT 66-2098
PART III

FIGURE III

CHANGE IN LOCAL REFERENCE POPULATION IN ARITHMETIC ACHIEVEMENT, MID TO END YEAR



B. The Semantic Differential, as specifed in the original Grant proposal, is being administered to each referral child on a six month interval. One Hundred (100) children referred for service have been in process long enough to have two samples taken, and the resultant data reveals that empirically measured conceptual shifts have taken place (sustantiating subjective information received from CESC staff, teachers, parents, and the children themselves).

The data reported is the over all mean placement on each dimension of all children with two Semantic Differentials (SD) measurements, (the SD plots a concept in Semantic space along the dimensions of value, potency, and activity for each concept. Each dimension ranges from a scale of 1-negative through 4, neutral, to 7, positive).

On the reality self, "Me as I really am", the self identity shift is positive along the value and activity dimensions. On the ideal self, "Me as I would like to be", (relating directly to aspiration level), the shift is also more positive than negative, mostly along the dimensions of value and potency. (See table below)

	Pre Test			Post Test		
	Value	Potency	Activity	Value	Potency	Activity
"Me Really Am"	4.9	4.4	4.5	5.2	4.3	4.8
"Me Like to Be"	6.1	4.5	4.8	6.3	4.9	4.7
"Parents"	6.3	4.7	4.0	6.3	4.9	4.4
"Teachers"	5.8	4.5	4.1	5.8	4.5	4.2
"School"	5.8	5.6	3.6	5.7	5.5	4.0

An interesting but unexpected side light appears to be the fact that the concept of "Parents" shifts positively along the dimensions of potency and activity, and "School" shows slight negative movement along the dimensions of value and potency, as well as a positive shift along the dimension of activity.

It is true the shifts shown on the chart are slight, but taken over a large group (N=100), even a slight shift over all is indicative of general movement.

The contention here is that the SD evidence, being less sensitive to slight opinion shifts than subjective evaluations, and showing more positive than negative movement, substantiates somewhat one of the original intents of the project - to present a climate wherein a more positive self concept and ego-ideal may be developed on the part of those children in difficulty who have been referred to the Center for service.

C. CASE STUDIES AS REPORTED:

Attached to the end of this evaluative summary please find samples of sections of case work-ups of children randomly chosen from our files, which will show the type and quality of involvement of the Center's personnel. Originally, it was felt that 5% of the pupils serviced by the CESC would be randomly drawn from the service population and reported in this manner. However, due to the large number of cases we have worked with, 5% would be an extremely large number and would take up considerable time and space. Therefore, we are reporting five sample cases. It has been extremely difficult to have some teachers keep frequency counts on unacceptable behaviors on children referred for service. At this point in time, this information is not available for the majority of those children who have been assisted by the Center. However, what is included in this section are reactions from teachers in their own words on the effectiveness of the intervention of Center personnel with the children they teach.

D. The Mobile Units did not come into service until very late in the year, due to engineering difficulties, both with the vehicles and the wiring at the local schools, but in the short time they were in service, 782 sessions were held with children using the mobile units for office space instead of the inadequate conditions in the local schools. Since the vehicles had only been used for such a short period of time, cost analysis data was not computed for the vehicle as compared with public school space. The figure, if computed, would reflect a cost roughly four times higher than would normally be expected on a full year basis. However, in the evaluation report next year, complete data for a full year and more will be available - on a per unit of service basis.

E. COST ANALYSIS FOR ALL SERVICES:

Based upon our expenditures for the 1966-67 fiscal year, including capital expenditure items such as furniture and equipment and specialized wiring of the schools to provide power for the mobile units on site (under another grant program), the average cost per unit of Title III direct service to children was $21.47, or $330.50 per active referral, or computed another way, approximately $41.90 per child enrolled in school, public and private. If one time purchase can be eliminated (such as the above mentioned capital items), the cost per child enrolled, in all grant programs, is reduced to $38.98. As the project continues, with experience, the cost will be reduced considerably in the future. This is not out of line with expenditures of major school systems for pupil services expenditures for only partial services, in comparison to the provision of total services through the Center.

F. COMMENTS BY CLIENTELE SERVED BY THE CENTER:

Included in this section is a series of direct quotes from administrators and teachers whose children have received service from Center personnel, as well as a number of reactions from Center staff personnel on their feelings on the team approach.

EVALUATION
PART C

PUPIL EVALUATIONS

PUPIL EVALUATION

Pupil's First Name: Garry
Pupil's Age: 11-2 Grade 4

Comments From Teacher:

Garry was considered to be the number one referral from a school, for psychological evaluation, last fall. One teacher commented that "he was the most disruptive and undisciplined student she had seen in 30 years of teaching". All such behavior traits seemed to manifest themselves at the beginning of the school year. However, the involvement of the CESC, which evaluated Gary and contacted the parents, and which offered some concrete suggestions and recommendations, seems to have changed his entire attitude toward school and people. Though still extremely active and energetic he seems to be more in control of his actions. The fact that people care for him seems to have enhanced his feelings about himself. People are more positive to him, rather than being just critical at all times. It pleases me to see such a positive change in this boy.

Pupil Services Report - Psychological

Reason for Referral:

Gary, who is repeating grade 4, is described as distractable, high-strung, and over-active. There is a lack of progress in all subjects. Reading is poor and he appears to have difficulty in seeing.

Observation of Behavior:

Gary appeared to be quite active in the classroom. He was fiddling with his shoes, moving in his seat, and thumbing ahead in a text book. He said, "Hello", to me as he went for a drink. On the playground, he got his own way and was able to be pitcher for the baseball game. He enjoys rough-housing it - pushing, pulling, etc. His teacher felt that he tests limits and usually does what he wants to do. He is small and rather unkempt in appearance. Gary was rather apprehensive during the initial part of the interview, but related quite well in his own way as the testing progressed. His own way is not to talk much but you know a good relationship has been established.

Tests Administered:

1. Wechsler Intelligence Scale for Children (WISC)
2. Bender-Gestalt Test (BG)
3. Raven's Progressive Matrices (RPM)
4. Peabody Picture Vocabulary Test (PPVT)
5. Thematic Apperception Test (TAT)
6. Madelyn Thomas Stories (MTS)
7. Draw-A-Person Test (DAP)

Interpretation of Test Results:

On the Wechsler Intelligence Scale for Children, Gary received a verbal IQ score of 80 or the 10th%ile, a performance IQ score of 96 or the 42nd %ile, on a full scale IQ score of 86 or the 18%ile, on a verbal sub-test - vocabulary - which is a good index of intelligence, Gary scored at the 76$ile. On the performance test outstanding scores are received on a test of concentration on visual material and entails a sense of discrimination between essential and non-essential details places Garry at the 84%ile, and on a test of visual organization which requires the ability to put things together into a familiar configuration, Garry scores at the 92%ile. On a sub-test

PUPIL EVALUATION - cont'd.

Interpretation of Test Results - Psychological - cont'd.

of pattern analysis and abstract reasoning (block design test), Garry scored at the 50%ile. He appears to work more effortlessly when he is doing things rather than seeing things. On the Peabody Picture Vocabulary Test - an oral functional vocabulary instrument - Garry received an IQ score of 96. One wonders how influential the home has been in providing educational experiences for this boy. The Bender-Gestalt Test - a test of visual motor coordination and perception difficulty - is rather well organized and intact. Garry's aggressive manner was reflected on the playground, is seen on the Thematic Apperception Test. There is some evidence that Garry is dissatisfied with the way that he sees himself and may want to become a better individual. It is felt that a warm, sensitive teacher can help Garry maintain limits and develop a better self concept. His teacher was seen on October 10, 1966, some two weeks after the initial testing had begun. She was aware of much improvement in his behavior and said that he "seems to be settling down". It is felt by this consultant that the teacher has thorough sensitivity and understanding, setting realistic limits, and accentuating positive things about Garry, she has reached the boy.

Recommendations:

1. That the teacher continue to give Garry support and understanding.
2. That Garry be referred to the Reading Consultant at the Center.
3. That the psychological consultant follow up Garry with counseling interviews.

Addition to Report:

A thirty minute telephone conversation was held with Garry's mother on October 25, 1966. When informed that Garry was being seen by a Center consultant she was initially quite hostile, however, when notified that Garry's behavior had improved, she seemed to be at a loss for words. Gradually she became more friendly and eventually reacted quite favorably to some of my suggestions. Garry received a dog this past summer and it was suggested that, just as limits are imposed on his new animal, so too are there things Garry can do and cannot do. She would like to be informed of Garry's progress in school. It is felt that she is making a sincere effort to help Garry.

Background Worksheet:

Reason for Referral:

Distractable, high-strung, aggressive and excitable.

Educational Background:

Repeating Grade 4

Previous Test Data:

SB - 1961: 95
SB - 1966: 82
Comment: Severe reading problem.

Clinical Worksheet and Progress Notes:

9-23-66 Classroom observation. Tests limits, looks around the room, fiddles with objects, moves in seat, looks ahead in book. Disheveled appearance. Get's a drink and says "Hello" to me. On playground: rough-housing it.

9-27-66 Testing session, a lot of energy.

10-11-66 Teacher conference: teacher feels he has improved behavior tremendously - seems to be settling down. Referred to Reading and Learning department.

PUPIL EVALUATION - cont'd.

Clinical Worksheet and Progress Notes - Psychological - cont'd.

10-25-66 30 minute conference over telephone with mother, she feels that getting a dog seems to have helped Garry. She's got a point! Pleased about good behavior report. Made several suggestions in reference to limits for Garry. Mother says she uses little physical punishment for Garry.

Last years teacher felt that Garry was the "worst pupil she had seen in 30 years!!. If this is the case, we've performed a small miracle.

10-25-66 Counseling session. Gary seemed pleased that his good behavior has been recognized by teacher. We need hundreds of teachers like this!! Garry will continue to be seen in counseling sessions.

12-13-66 Counseling interview - Garry seems much calmer and at ease. Picked out a book and he read, with great difficulty to me. He was motivated to do this by himself.

1-31-67 Saw Garry briefly. Quite relaxed, and presented a neater physical appearance, was more verbal today than at any time in the past.

3-14-67 Short conference with Garry, just to keep in touch. Quite verbal today, too. Told me of amusing incidences with his dog and seemed to be enjoying the responsibility that an animal entails.

Pupil Services Report - Reading and Learning

Reason for Referral:

Comment by referring consultant: "Garry was seen by me for a diagnostic evaluation. Behavior which was diruptive in the past has changed for the better this year. It is felt that Garry can profit at this time from an individual program from the reading and learning service.

Instrument Administered:

Durrell Analysis of Reading Difficulty

Results of Testing:

Part	Grade Equivalent
Oral Reading	1.8
Silent Reading	1.8
Listening	3.0
Flash Words	2.5
Word Analysis	2.2
Visual Memory	2.5
Hearing Sounds in Words	2.8

It appears that Garry's capacity, as indicated by the Listening portion of the test is about grade-3 level; however, he apparently does not perform at this level. His instructional level is about grade-1 and he seems to have no independent reading level.

Tentative Plans and Suggestions:

1. Garry meet with this consultant on a weekly one to one basis for strengthening his reading skills and to provide him with successful reading experiences (therapeutic in itself, as suggested by the psychological consultant) until a workable program can be implemented for regular class.
2. Instructional material in class be at a grade-1 level.

Garry d

PUPIL EVALUATION - cont'd.

Clinical Worksheet And Progress Notes - Reading and Learning

9- -66 Durrell Analysis of Reading Difficulty Administered.

10-18-66 Psychological consultant suggested reading for Garry now. He has quite a struggle sometimes in formulating words - not stuttering exactly. Talks quite freely.

12-20-66 Garry's glasses are broken - no work today
Checked October, 1966 Iowa's:

Vocabulary	Gr. 2.2	7%ile
Reading	Grade 2.9	20%ile

1-17-67 Semantic Differential administered.

1-13-67 Re-administering of Durrall Analysis of Reading Difficulty.

Clinical Worksheet and Progress Notes - Social Services

3-9 Case discussed with the principal today. It is his understanding that the family financial status would place services to Garry under Title III funds. Garry is said to be living with his mother and her third husband, who is the boy's step-father.

This year represents the second retention for the boy, he is twelve years old and in the fourth grade. A home visit will be made as soon as the case load permits.

PUPIL EVALUATION

Pupil's First Name: David
Pupil's Age: 9 Grade: 3

Comments From Teacher:

This nine year old Grade 3 pupil has been receiving assistance from the Speech and Hearing consultant. David seems to be more at ease when reading and during his oral recitations. He has overcome many of his nervous mannerisms and I have noticed a decided improvement in his speech.

As his teacher, I feel the help he has received from the Speech and Hearing consultant, who is exceptionally patient and understanding, has been most beneficial for David.

Pupil Services Report - Speech and Hearing:

Reason for Referral"

This child has been referred because of a speech defect which was found during a speech and hearing survey conducted at the beginning of this school year. There are distortions of speech sounds and his speech demonstrates a lateralized lisp.

Background and Present Status:

This child has also been referred to the psychological services of the Center.

Speech and Hearing Performance:

David has many distorted speech sounds and faulty s blends.

David passed a hearing screening test and his hearing seems excellent.

Behavior and Reactions:

These seem normal. He appears bright and witty. At times, he wants and obtains attention by clowning. Generally, he is well behaved.

Plans for Therapy:

David has been seen in a small group of three pupils and has performed well. He can make all the sounds in isolation and he and the group are working for good carry-over of these isolated sounds in speech and oral reading.

Progress:

There has been marked improvement in speech and by other reports there has been improvement in personality and attitudes.

Background Worksheet - Speech and Hearing

Speech, Hearing and Language Performance:

David has many distorted sounds: sh, ch, s, z, j and s blends. He has a lateral lisp.

Behavior and Reactions:

This seems good.

Recommendations:

Speech therapy in a group.

Plan for Therapy:

Therapy for distorted speech sounds and lateral lisp.

PUPIL EVALUATION - cont'd.

Pupil Services Report - Psychological

Reason for Referral:

David was referred to the Center because of a general underachievement in all subject areas. He doesn't mix well with other children, is rather high-strung and may exhibit hesitant speech.

Observation of Behavior:

David is a friendly and extremely likable boy. He would fidget with different objects on the desk and seemed to have a bundle of nervous energy to expend. He had a great need to verbalize some of this energy. On some of the sub-tests of the Wechsler he became so wrapped up in what he was saying, he forgot the importance of time. He talked constantly during other parts of the battery. David was rather disheveled in appearance. A speech difficulty, heavy breathing, were noted.

Tests Administered:

1. Wechsler Intelligence Scale for Children (WISC)
2. Peabody Picture Vocabulary Test (PPVT)
3. Bender-Gestalt Test (BG)
4. Draw-A-Person Test (DPT)
5. Madelyn Thomas Stories (MTS)
6. House, Tree, Person (HTP)

Interpretation of Test Results:

On the Wechsler Intelligence Scale for Children, David received a verbal score I.Q. of 123 or the 94%ile, a performance I.Q. of 89 or the 24%ile, a full scale I.Q. score of 107 or the 70%ile. On the verbal scale outstanding scores were received on a test which measures the fund of knowledge acquired in the course of growing up and which placed David at the 96%ile, on a test of conceptual thinking which placed him at the 98%ile, and on a test which measures general intelligence and is a good index of schooling, David scored a 98 %ile. In the performance scale two deviate low scores were noted. David scored at the first percentile on a test which measures the ability to put things together into a familiar configuration and in which may be easily influenced by the emotional pattern of the idividual. On a test of visual motoe coordination and one which measures the ability to concentrate and and to apply oneself to a task over a period of time, David scored at the 6th%ile. It appears that much of David's energy is being used on problems which are bothering him. The wide disparity between the verbal scale and the performance scale is indicative of such a disturbance. David is a rather impulsive, immature boy, who has a need to relate to people. One wonders ehether David has been listened to or taken seriously in the home. There is some evidence of a fear of bodily harm. The methods of punishment could be explored with the parents. It is felt that a family conference is necessary at this time.

Addition To Report:

On October 31, 1966, a conference was held with the mother and father. They seemed genuinely interested in wanting to help their son. They readily admitted that something was bothering David. As the conference progressed the father expressed feelings of guilt in the way he handled the boy. In addition, an older brother would harass David with no recourse from the parents. This brother has since married and left the home. It

PUPIL EVALUATION - cont'd.

Addition to Report - Psychological, cont'd.
seems that the parents need a more positive approach toward David, with an emphasis on the things he can do well. David is extremely fond of an older brother who is sensitive and understanding. The mother felt that she could work on improvement of voice control in discipling David. The parents seemed anxious to implement some of the suggestions that were explored during the conference. It was felt to be an extremely worthwhile meeting.

Recommendations:

1. The parents need to re-examine their methods of discipline.
2. That David be allowed to study in a place free from distractions.
3. That the father become more involved in doing things with David.
4. That a follow-up conference be held with the parents in order to evaluate David's progress.

Clinical Worksheet and Progress Notes - Psychological

9-26-66	Observed in classroom. Felt teacher was cross examining him for my benefit. Rather disheveled appearance. Friendly, active during testing.
9-29-66	Testing situation - heavy breathing. Has a speech problem, lisp (?).
10-31-66	Parent conference with mother and father. Father extremely guilty over handling of David. Felt physical punishment was used quite often. He would display his feelings about neatness to David. Admitted older brother would abuse David and parents did nothing. They seemed anxious to implement some of the suggestions made at the conference.
1-5-67	Speech therapy was begun for David by the speech and hearing consultant.
1-16-67	Phone conversation with mother. She sees a decided change in him and is extremely grateful for all speech and psychological help. David seems to be settling down in school and at home. Father has become more actively involved with his son.
2-14-67	Case referred to the inactive list.

PUPIL EVALUATION

Pupil's First Name: Peter
Pupil's Age: 8-4 Grade: 2

Comments From Teacher:

It is with a great deal of pleasure that I have watched Peter's improvement this year. His attitude toward school is much more mature. He is able to concentrate on his work and ignore minor distractions. His attention span has increased. He comes most willingly to the reading group and reads with much more pleasure and assurance. Although he is not reading on grade level there has been a good gain.

He is much more reliable about finishing work assignments. He often voluntarily finishes papers before taking a game at noon time.

His aggressiveness has largely disappeared. He doesn't pester the others. Very rarely do I have a complaint about him from the children.

Peter's comments add much to classroom discussions and are much more to the point than they were in the beginning.

Pupil Service Report - Reading and Learning

Reason for Referral:

Poor oral reading and comprehension, underachiever, aggressive.

Instrument Administered:

Durrell Analysis of Reading Difficulty

Testing Results:

Part	Grade Equivalent
Oral Reading	Middle Grade 1
Silent Reading	Middle Grade 1
Listening Comprehension	Equal to silent reading level of Gr. 4
Word Recognition	High Grade 1
Word Analysis	High Grade 1
Visual Memory of Words	Grade 3
Hearing Sounds in Words	Grade 3

Tentative Conclusions:

The test results appear to indicate that Peter's ability far exceeds his achievement at this time. Because he received reading instruction in the ITA method during his second year in Grade 1, Peter's phonic skills are good. However, his sight vocabulary appears to be very small and his efforts during oral reading indicate he tries to sound out every word, resulting in confusion. Peter is nervous about reading and feels more secure in ITA. His desire to achieve is great.

Suggestions:

It seems best to suggest an instructional level of 1.5 (pre-primer) for Peter with emphasis on sight vocabulary at this time.

A consultant will continue working with Peter on a bi-weekly basis following the suggestions listed above.

CESC Winsted, Conn.
Grant No. OEG-1-7-662098-009 Conn.

PUPIL EVALUATION - cont'd.

Background Worksheet - Reading and Learning

Reason for Referral:

Poor oral reading and comprehension, overactive,,underachiever, distractible and aggressive.

Teacher's Comments: "Peter is not achieving the results that he should. he is inclined to be lazy."

Educational Background: Reading and Learning:

Had kindergarten experience (abs. 20). Repeated Grade 1. Grade 1, absent 16½ times. 2nd time Grade 1, absent 11½ days.
1st. Gr. I - Reading D. English or Language - C
2nd. Gr. I - Reading B English or Language - B+

Progress vs. ability KS (1)U (2) S

1964 Met Readiness - 84%ile		Wd. Rdg.	Mng.	Vocab.	Sp.	Study Wd Skills
Stanford - May 1966 1.8	1965	1.3	1.5	2	1	1.3
May 1965 1.8		1.6	1.3	4	2	2.3

Previous Test Data:
1964 (K-7) St. Binet 131
Scott Foresman "We Read Pictures" score: 82 (?)
Pre-Primer Low

Personal and Social Data:
Both parents, two male siblings
Mother works - factory
Teachers comments attitudes and habits - B-C-D-C
Brother referred to Reading and Learning and Guidance departments (Gr. 4)

Clinical Worksheet and Progress Notes - Reading and Learning:

9-28-66 Administered Smith's Informal Reading Inventory. Start at Pre-Primer level - but check ITA

9-30-66 O.K. to go on with traditional

10-5-66 Readiness Test - initial final consonants, O.K.; letter names O.K., was "silly, talky, not attentive."

10-14-66 Peter seems tense, very anxious to read. Gets very grustrated.

10-26-66 Referred to Social Service. This youngster seems to feel he's not worth much. He seems to me to be leading toward being an emotionally upset child. He's apparently quite bright and I feel strongly that we should "save him" at this time, rather than let him drag along - frustrated and causing problems in the classroom.

11-15-66 Teacher said that he seems much better, is even "moving" to next higher group. She feels that this extra attention is especially good for him - he isn't "lost" in the crowd. She is having him and a few others go back to primer in another series.

11-17-66 Consultant tested him by Durrell Analysis of Reading Difficulty

12-16-66 Basic Vocabulary drill very necessary

1-2-67 WRAT Level 1 spelling
Case turned over to Senior consultant.

1-5-67 This was my first contact with Peter having had his case transferred to me by other consultant. My primary purpose in remediation is to help Peter develop a working "sight" vocabulary, and for this purpose I initiated use of a personal "word bank". Peter reacted to this activity in a positive manner.

1-9-67 Began work building sight vocabulary through the use of a word bank in which Peter may deposit the words he masters. He seemed to react well to this kind of activity and is eager to continue the work next week.

PUPIL EVALUATION - cont'd.

Clinical Worksheet and Progress Notes - Reading and Learning - cont'd.

1-12-67 Peter seemed most eager to work with me today. His teacher has commented that he is very proud of his "word bank" box, pointing it out to visitors in the room and discussing it with other children. We have used 80 of the Dolch basic vocabulary. Of these Peter had preciously mastered 46. During these two sessions he has added 20 more words to the "bank".

1-16-67 Continued working with Word Bank, Peter has since last week mastered six words that he had been unable to attack on our previous meeting.

1-23-67 Administered WRAT Test and Semantic Differential.

1-30-67 Peter was absent today.

2-8-67 In our work on the Word Bank today, Peter retrieved six words he had not known during the last session, and added fourteen words to his Bank. Peter is still responding well to this activity ivity, and his sight vocabulary is increasing significantly.

2-16-67 Peter added 14 words to his Bank and lost one.

3-2-67 Peter added 12 words to the Word Bank and reclaimed the one lost last week. He still appears to respond well to this activity.

3-8-67 Peter added 16 words to the Bank, reclaimed two formerly not known. He seemed eager to talk with me about a story he is writing in his classroom and was very pleased when I asked him to bring it and read it to me next week. He promised to do so.

Clinical Worksheet and Progress Notes - Social Service

This case comes to us, brought to our attention by the Learning consultant, who felt a very definite need for social work intervention in the family situation which seems to have some direct bearing on Peter's performance at the present time. Peter also has a brother, who is some four or five years his senior, who has a chronic allergic infection or condition that is causing him some hearing difficulty, and which is being treated through desensitization shots at the present time.

Contact with the mother via telephone brought a very genuine response from her in terms of wanting to do what she could for Peter, and she was receptive to keeping an appointment here at 3:00 P.M. on 11-7-66

The mother was late for her appointment having difficulty in finding the Center. She appeared somewhat tense and very quickly questioned whether or not I were a "psychiatric Social Worker". I commented that I was and wondered why she asked me. She quickly brushed this off with, "No particular reason". Initially she was extremely defensive of Peter, saying that she had no idea of what his difficulty was. She said that he had always struck her as a bright boy, and therefore she questioned why he was having difficulty in school. She pursued at length with me what were the specific complaints of the teachers and did all of this in a highly defensive manner. A very calm and gentle approach, however, quickly melted down much of her defensiveness, and she began to reflect on some poignant comments that Peter has made that would indicate that there may be considerable rivalry between himself and his older brother. As she went on further, it would seem that the sickly older brother has been the object of a considerable amount of attention on her part, which,

PUPIL EVALUATION - cont'd.

Clinical Worksheet and Progress Notes - Social Services - cont'd.

in all likelihood Peter interprets as an indication of her affection for the older brother and lack of affection for Peter himself. In fact, as she proceeded further, tears began to come slowly to her eyes as she said she even remembers ocassions when Peter has indicated his distress over his "prejudicial" position in the family by asking if he were not adopted, and where his real mother was. He has also made comments to the affect that he wishes something serious in the sense of an illness would befall him so that he could then be in the same "favoured" position as he sees his brother. It turns out that the father works varying shifts from time to time, making it difficult for him to be physically present as either a father or a husband. The mother was more than willing to return to discuss this problem further after I have made a visit to the school and better appreciate how they are trying to cope with Peter at this time, and what specific problems he is causing his teacher.
11-7-66

CESC, Winsted, Conn.
Grant No. OEG-1-7-662098-0099, Conn.

PUPIL EVALUATION

Pupil's First Name: Calvin
Pupil's Age: 9 Grade: 3

Comments from Teacher

"Calvin was referred to the Cooperative Educational Services Center in September. He was aggressive and a definite discipline problem. In addition, his reading was far below grade level. Since September Calvin has shown great improvement. A speech problem was also detected and he has speech therapy and remedial reading sessions each week. Calvin also has psychological help."

Pupil Service Report - Speech and Hearing Services

1. Reason for Referral: Calvin was referred because of a lateral lisp.
2. Background and Present: Calvin has been seen by the psychological consultant and is presently being seen weekly by the reading and learning consultant.
3. Speech and Hearing Performance: Calvin's speech is characterized by the distortion of the bs, sh, z, ch, and j sounds. He is unable to imitate correct production of these sounds. An audiometric sweep test shows that Calvin's hearing is within normal limits.
4. Behavior and Reactions: Calvin is a very cooperative and interesting child. He has become much more at ease during the therapy session as the year has progresses. He contributes much to the group.
5. Plans for Therapy: Calvin be seen weekly for speech therapy in a group situation. Also, speech and hearing consultant work closely with the reading consultant in order to supplement each other.
6. Progress: Calvin has become aware of speech sounds, particularly those which he mis-articulates, and is now ready to work on sound production, first in isolation then in single words.

Background Worksheet - Speech and Hearing Services

1. Speech, Hearing and Language Performance: Calvin was seen on Nov. 10, 1966, for a speech evaluation. A modified Henja Developmental Articulation Test was administered. Calvin's speech is characterized by a lateral lisp which results in the distortion of the following sounds: s, z, sh, ch, j. Stimulability test shows that Calvin is unable to articulate these sounds correctly in isolation or in any of the three positions, although movement of articulators is satisfactory. A pure tone audiometric 15db sweep test was administered. Calvin's hearing in both ears is within normal limits for all frequencies. In a group situation Calvin is very active. He offers much conversational speech which is quite intelligible to the listener. Language performance appears to be within the norms for his age.
2. Behavior and Reactions: Calvin is a very cooperative and pleasant child. He was not aware of the reason for being taken from the classroom, but accepted the explanation with no apparent withdrawal. It has been noted that Calvin is much more verbal during a group session and takes the initiative to be the first to respond.
3. Recommendations: Calvin be seen for speech therapy one half hour a week in a group situation. The speech and hearing consultant work closely with the reading and psychological consultants for total rehabilitation.
4. Plan for Therapy:
    - a. Auditory discrimination.
    - b. Phonetic placement.
    - c. Production of sound
    - d. Carry over outside therapy situation

CESC, Winsted, Conn.
Grant No. OEG-1-7-662098-0099, Conn.

Pupil Service Report - Reading and Learning Service - 1966

1. Reason for Referral: Poor oral reading. Under achievement, lack of progress in reading. Repeated second grade.
2. Instrument Administered: Durrell Analysis of Reading Difficulty.
3. Results of Tests:

Part	Grade Equivalent
Oral Reading	1.5
Silent Reading	1.3
Listening Comprehension	3.0
Word Recognition	1.5
Word Analysis	1.8
Visual Memory of Words	1.5
Hearing sounds in Words	3.5

This would indicate no independent reading level, an instructional level of grade 1.5, and a frustration level established at grade 2.5.

4. Tentative Conclusions: The higher score in the Hearing-Sounds-in-Words over Word-Analysis indicates a complicating factor which may be emotionality, may be perceptual difficulty, although his perceptual difficulty appears to have been ruled out through psychological testing. Emotionality appears to be a definite factor.
5. Suggestions: That Calvin work with this consultant one period a week on motivational materials and on word attack skills, moving very slowly from independent level to instructional level materials, that is, from non-reading activities to reading materials. That reading instruction in the classroom be carried on at minimal frustration atmosphere and that Calvin be allowed to progress at a slow pace until further psychological work can be done.
6. Progress Report - January 26, 1967

Calvin is working well in a structured and developmental phonics program. He is having some difficulty with short vowel sounds, but is achieving some success with excercises in this skill. He has mastered final and medial consonant sounds. He had mastered initial consonant sounds and blends when I began to work with him. He has now mastered digraphs apparently and is having some success with comprehension of expository selections read.

Calvin is beginning to evidence some interest in reading stories, appears to enjoy his work with this consultant, and is working well. Late in December of 1966 the Frostig Test of Perceptual Development was administered and Calvin was found to be weak in the area of figure constancy. Although there does not appear to be severe perceptual handicap this particular weakness can and apparently has resulted in some reading difficulties such as inability to do copy work accurately, confusion in reading a page of print, loss of place during oral reading classes and inaccurate reading. Because of this Calvin has been given training materials from the Frostig program for this skill. He is using these in the classroom with his teacher and appears to be meeting with some success in the program. Since this is a recent development, no definite conclusion can be drawn as to the success of this training for Calvin. However, it would appear that it will increase his ability in discriminating form, in keeping his place during oral reading and in helping him to develop the ability to read more accurately.

Since improvement and more highly motivated work on Calvin's part is just now becoming apparent, it seems wise for him to continue working with this consultant for at least several more weeks, perhaps until the end of

6. Progress Report - 1967 (Contd)

the year until such time as either a classroom program can be implemented which will strengthen his skills in reading without further remedial assistance or until such time as the refuler classroom reading program becomes adequate to his needs. That is, until he has mastered those skills in which he is now deficient.

Clinical Worksheet and Progress Notes - Reading and Learning Services

10-24-66 - Although Calvin can identify phonetic sounds in words dictated, he has difficulty in applying this ability to unlock new words. There is a significant upward difference between performance using identical material in oral and written materials.

11-7-66 - Working well with initial consonant sounds. Seems happy to come and do this work, but has not yet remembered on his own to keep his appointment with me.

11-14-66 - Did not remember to come until reminded. Worked well with consonant sounds in new context. Seemed pleased with new books presented.

11-21-66 - Reminded teacher at 9:00 that he was to work with me at 9:30, but did not remember to come at that time. Seemed tired, but when asked if he would like to stop, said "No", he wanted to "do another page".

12-12-66 - Frostig Developmental Test of Visual Perception Results: Perceptual Quotient equals 94 (35 percentile). All scores slightly below average for his age, except for Visual-Motor control. His score on Figure Constancy was especially low, nearly three years behind his C. A.
Plan: to initiate work with visual perception exercises in January.

1-6-67 - Calvin seemed quite eager to work today. He talked at length and with animation about his horses. Later he commented that he is "beginning to learn to like to read", and asked if I could get him "an easy horse story".

1-7-67 - Working with Webster Phonics Program Calvin had little difficulty determining the number of phonic sounds in broken words and worked well in this material.

1-13-67 - Administered WRAT - Results are on file.

1-14-67 - Read story from Reader's Digest, level 1, and Calvin seemed to enjoy it but did not wish to borrow the book and read other stories in it.

1-20-67 - Worked in Webster Phonics program. Administered Semantic Differential. Results are recorded.

1-21-67 - Calvin is having some difficulty in hearing short vowel sounds. He is especially confused between a and o.

1-28-67 - Calvin is beginning to distinguish between the short vowel sounds with some degree of accuracy.

2-10-67 - Calvin could be described today as being "sparkly". He greeted me with a long, excited narration describing his battle with, and mastery of, a computation skill in math, and ended by showing me three papers. Two were 100% correct, and there was one error on the third. Calvin explained what had caused the mistake and how he had corrected it. He then treated me to a detailed description of his activities on a recent day when his "best" friend visited his home. He worked eagerly and well for me, and ended the session by telling me that he had been to both the Bakerville and Pine Meadow Libraries and had taken out books. He said, "I read all the time, now, because I like to, and I found some books I can really read, and I like them and nobody made me!". Quite a statement from erstwhile taciturn Calvin!!

Clinical Worksheet - Reading and Learning Services (Contd)

2-17-67 - Read C. W. Anderson's book, The Crooked Colt with minimal assistance and much obvious enjoyment. Calvin seemed very eager to do some written work to take home. I wonder if he uses the "good" papers from me to offset the "bad" ones from his classwork? Or perhaps he has simply learned that good work brings parental praise?

3-3-67 - Calvin was absent today.

3-9-67 - Calvin worked well today, and engaged me in conversation at frequent intervals. During one such conversation he told me that his mother "sells things now", and showed me a pencil which she had given him "from a party". When it was time to stop Calvin asked me to stay longer and read a story. He read a short story well and seemed most pleased with himself.

Clinical Worksheet and Progress Report - Social Services

11-10-66 - Telephone call to arrange for Home Visit.

11-14-67 - A home visit was made today to the isolated mountain-top home of Calvin. The primary purpose of the call was to gain some indication of the family finances to determine funding for services.

On the occassion of this visit this worker had the opportunity to interview Calvin's mother and learn something of the family. She was most cordial and seemed grateful for the opportunity to speak with someone outside of her immediate world about her anxieties centering around Calvin's learning problem, and her own ambivalent feeling regarding the disintegration of their marriage and family relationships.

The family consists of the mother who is clean, attractive, and maintains an orderly home on the interior; father who was characterized by his wife as being a loner, an alcoholic, physically and verbally abusive much of the time; a married daughter, who apparently doesn't visit because of negative feelings toward her father; Calvin's older brother, described as a bookworm, and Calvin, whom his mother sees as a very loving child who craves his father's approval. One other influential member of the family is the mother's widowed mother-in-law, who seems to be an autocratic matriarch. The mother-in-law lives in the old homestead (badly run down) and according to Calvin's mother directs her son's affairs, protects him, condones his abusive acts and has always been openly hostile to her. Shortly after my arrival at the home this woman telephoned to learn who the visitor was, etc.

Discussing Calvin's trouble with school work, the mother stated that her husband is unable to see why this youngster can't achieve the same grades his siblings did--becomes angry when he does not bring work home, and arbitrarily forces him to read because he feels the discipline of practice will, under this type of reinforcement, produce the desired results.

The mother stated that she feels the home life, the arguments and abuse, have much to do with this child's failure to achieve. He is apparently intellectually capable of normal proficiency but is blocking on the reading skills. Mother has tried to help him at home, but states that most of her time and energies are used to maintain a degree of peace and in protecting the boys from as much criticism, sarcasm and haranguing as possible. The father seems to spend most of the weekend drinking and does not sleep at this time. Rather, he sits in a chair and demands an audience for his tirades. The mother stated that he does all his drinking at home. She has tried to persuade him to drink in a tavern, where others might get to see the side of him that she and the children know. The mother says the

Clinical Worksheet - Social Services (Cont.)

father impresses others favorably, that he deliberately lies to build up his self-image, and belittles her. The father apparently has few friends, those he has are men who accompany him on fishing and hunting trips. In the past the mother was required to go along on these expeditions, though she was the only wife on the trip.

The father has resisted offers for sale of his land. In fact, it was said that he has wanted to buy more land to prevent people from building nearby. The mother said that she would welcome neighbors, and the children who at present have no companions as they live such a distance from other residential areas. Mother sees the latter fact as one reason why Calvin has difficulty settling down in school--he is so happy at being in a peer group that he makes the most of the social opportunity here presented.

The mother told me that she has left her husband on a number of occasions when things got really rough and has stayed with a sister on these times. She described one episode wherein the husband became violent to the extent that she suffered a broken cartilage as a result of his abuse. At this time the doctor recommended that she not return. On occasion she has called the resident state policeman when she was fearful. She has also apparently been in contact with Family Service, where she initiated but has not continued in counseling, both because of transportation problems and because her husband was so hostile to the idea.

Two brothers of the father have a history of marital discord and trouble with the law, according to the mother. The father's father,recently deceased, was described as a peacemaker and on good terms with his daughter-in-law and her one ally in the family. The mother's ambivalence over how she feels in the marital situation is shown in her statement that the boys are able to keep several ponies here, and this would not be possible should she pick up and leave.

The mother's life is further complicated by the fact that the school board has refused to send a bus to their hom, meaning that the children would have to walk a considerable distance along the main road, so she has found it preferable to drive the children all the way to school.

The mother had hoped that I would be able to meet the father, who is on vacation this week, but he did not appear in the time I was there. The father has also found it inconvenient to meet with Calvin's teacher this week for parent-teacher conference, saying that he could only do so in the evening. Father apparently makes a good salary at his place of employment, but the mother regrets the fact that they haven's been able to "get farther" because of what she sees as a large portion of the income being spend on drink.

In terminating the interview I urged the mother to call us if she felt there was some way in which she thought we could be of help. I feel that this mother needs support at this time and would appreciate further clarification of her son's reading problem and would cooperate in any plan the school teacher and the CESC might agree upon in working with this child.

11-15-66 - Conference with the reading consultant to discuss the case in light of her analysis and social service findings. This consultant seemed to feel that there was a relationship between the fact that the father had been using reading as a punishment and the child's apparent blocking on this skill.

Clinical Worksheet - Social Services (Contd.)

11-17-66 - Notation to report that today both the mother and the father were met quite accidentally at the school at the time of parent-teacher conference and apparently the mother found the strength to persuade her husband that his presence was important.

2-10-67 - Team conference at Calvin's school. His teacher has requested permission to read the social service report on my home visit. It was stated that our director would have to give permission on this policy. Later: After checking with Mr. Murphy, director of CESC, it has been established that these reports are to be available to the CESC Staff Only! We may share information verbally when pertinent to classroom situations, but otherwise information is to be held sacred. The teacher will be told of the policy. The teacher states that this child has her "climbing the wall". She cited his aggressiveness toward other children in particular. Calvin apparently has the attitude in class that he is "the greatest".

3-17-67 - Reviewed the case with the Senior Social Service consultant.

Clinical Worksheet and Progress Notes - Psychological Services

1-17-67 - Calvin's mother came to the school for a 9:00 a.m. appointment. The test results were explained to her, and she was told that Calvin is not working to his full capacity. This she knew, as his teachers have told her quite often.

Calvin attended kindergarten with his mother when she assumed her responsibility as helper to the teacher that year. Calvin's brother was in kindergarten at the time. Calvin was babied, and, when he did something wrong, the teacher would say, "Oh, he is too young and he doesn't know any better. We must excuse him." Partly because of this experience and partly because of a too permissive atmosphere at home, Calvin has, according to his mother, developed the attitude that Calvin can do no wrong. When Calvin was very young, a grandmother lived in the home, and he was her favorite. Calvin's every wish and desire was anticipated for him.

Calvin's father is a hard-working man; he works long hours and has very little time for his family. When he is at home, the mother feels his dealings with the boys are too strict and punitive. She intercedes on the boys' behalf. Children very quickly pick up disagreements between parents on discipline and play one parent against the other. This, the mother feels, takes place.

The family live a mile from the bus stop, and rather than have the boys walk the distance, she transports them every morning and afternoon. She usually transports them all the way to school. She has asked the school authorities to run the bus to her house, but this has neven been done. She was rather bitter about this. The mother seems overprotective and smothering, and the father seems never to be satisfied with either of his boy's accomplishments.

PUPIL EVALUATION

Pupil's First Name: Jean
Pupil's Age: 9 Grade: 4

Comments From Teacher

"As the result of the assistance rendered to Jean through the Cooperative Educational Services Center, he has shown a great deal of improvement in the area of his weakness, namely his word attack skills. He no longer labors over the pronounciation of a new or difficult word. Any evidence of previous tension has been reduced considerably.

"In his social interaction in both academic and recreational areas, Jean is very much at ease with his classmates. This proceeds as a direct result of his new found self-confidence."

Pupil Service Report - Reading and Learning Service

1. Reason for Referral: Jean seems fearful when attempting to pronounce a word. He labors at initial sounds. Does poorly in oral reading and lacks progress in reading.
2. Instrument Administered: Scott, Foresman Reading Inventory-Survey Test
3. Result of Test:

Part	Grade Equivalent
Sentence Meaning	2.5
Word Meaning	2.0
Total Meaning	2.5
Word Analysis	2.5
Dictionary Skills	3.0
Total	2.3

4. Tentative Conclusions: As indicated by the Scott, Foresman Reading Survey Test, Jean is having a great deal of trouble with word meaning and word analysis. He does not have adequate skills in phonetic and structural analysis skills. He does not know all of the Dolch 220 basic sight vocabulary words.
5. Suggestions: Remedial reading instruction should be at a second grade level, with independent reading material on a first grade level. Jean's sight vocabulary needs to be strengthened. Jean should begin remedial reading instruction by reviewing the basic relationships between consonant sounds, short vowels, and sound blending. He should work with his consultant one period every other week.

Background Worksheet - Reading and Learning Service

1. Reason for Referral: Jean has poor oral reading and lacks progress in reading.
2. Previous Test Data

Date	Grade	Test	Form	C.A.	M.A.	I.Q.
1-66	3	Lorge-Thorndike	1-2A	8-11	-	61
2-66	3	Iowa				

Clinical Worksheet & Progress Notes - Reading and Learning Service

11-17-66 - Remedial Plan: Jean needs to learn his 220 basic sight vocabulary words. Materials: Reading - "Conquest in Reading".
12-5-66 - Jean started working on 24 of the Dolch 220 basic sight words.
1-5-67 - Administered the "Durrell Analysis of Reading Difficulty".

1-5-67 (Contd) - Results of Durrell Test:

Oral Reading	2.2
Silent Reading	1.5
Listening	5.0
Flash Words	2.5
Word Analysis	2.5
Visual Memory	2.5
Hearing Sounds	3.5

1-12-67 - Administered the WRAT and Semantic Differential Tests.

1-19-67 - Worked on the short vowel sound of a and i.

1-26-67 - Had Jean work on the consonant blends of ch and sh.

2-2-67 - Worked on the second group of (24) words of the Dolch 220 basic sight vocabulary words. Started working on the suffixes s, ed, and ing. Jean is starting to show some progress.

2-9-67 - Worked on the short sound of u. Reviewed the short vowel sounds of a, i, and u.

2-16-67 - Worked on suffixes s, ed, and ing. Started working on the short vowel sound of e.

3-2-67 - Worked on the hard and soft sounds of c and g. Jean needs more practice on this skill.

3-9-67 - Read from "Conquest in Reading", pages 7, 8, and 9. Had practice in blending sounds to pronounce words containing short a and i. Jean seems to have mastered the short i and a sounds.

Background Worksheet - Speech and Hearing Service

1. Reason for Referral: Student has articulation problem (lateral lisp), with distortion of the s and z phonemes.
2. Articulation: Distortions. Consistent.
3. Remedial Work: Regular, group work.
4. Imitation: Fair.
5. Speech and Hearing and Language Performance: Jean was given a modified Henja Developmental Articulation Test on Nov. 7, 1966. He was able to produce all phonemes correctly with the exception of the s and z phonemes. Jean's speech is characterized by a lateral lisp which has resulted in the distortion of the s, z and s blends. At this time, he was unable to produce these phonemes in isolation correctly. Language performance seemed to be average for the norms of his age group. A pure tone sweep test of auditory acquity was administered on September 19, 1966. Jean's hearing was found to be within normal limits.
6. Behavior and Reactions: Jean was cooperative and willing to do anything that was asked of him during the speech and language evaluation. He talked freely but appeared to be somewhat shy at the beginning of the evaluation.
7. Recommendations: It is recommended that Jean receive articulation therapy once a week for a half-hour session.
8. Plan for Therapy:
    1. Create awareness of defective sound productions.
    2. Analysis of the defective sounds and correct sounds.
    3. Establish the desired sounds.
        a. Sound stimulation.
        b. Phonetic placement.
        c. Carry-over.

Jean c

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Grant No. OEG-1-7-662098-0099, Conn.

Clinical Worksheet and Progress Notes - Social Services

1-8-67 - Phone call to mother to arrange for a home visit.

1-9-67 - This case came to our attention through the reading and learning consultant, who is concerned to learn about the home influences as they might affect the boy's reading problem. The Social Service representative was requested to go into the home to get acquainted with the mother and learn something of her attitude toward the boy's work. For this purpose, a home visit was made today. It was the reading consultant's feeling that there was possibly too much pressure put on the children at home, and this hypothesis seems to be a valid one from what this worker learned from the mother. The family has five boys. Four out of the five appear to have difficulty at school. The mother stated that her boys are getting the most extra help with school work of any of the children in the neighborhood, yet are having the most difficulty. She was able to verbalize a possible relationship between these two facts and wondered if perhaps they were getting too much help. The mother told me that she had always helped the boys with their homework and that last summer she had worked each day for a period of fifteen minutes with Jean and one of his brothers. It was further learned that the two boys do not receive help from their father, but prefer to wait until the mother is free to help them. The mother said that the father had very little patience, and added that she had little herself. However, the boys are more adapted to her and don't mind showing her their weaknesses. The mother also stated that she tempers her impatience with love. This mother is pleased that the reading and speech people are involved in helping her children. She stated that they have always been slow, that they have been given easy work by their teachers at school, and have been pushed along. She stated that one of her older boys, who is at a technical school, is reading on a primary level. She is also very concerned about the sixth grade son who is said to be the family clown,and seems to feel that all but one of the children have had similar reading problems. The mother has become involved with the work books Jean and his brother were given by the reading consultant, and wanted to know if she were expected to help with this, too. Apparently she already has been helping the two boys, as she showed me flash cards that she has used with them, using words which they had difficulty in discriminating. She has also worked with them on their spelling. She admits it is one of her weak points and that she has dictionaries all over the house.

This mother implied that in her own family there had been slow learners, even to the degree of retardation. This may be one reason she has been so dedicated herself to working with her boys.

The mother showed me some papers which had been sent home with the boys requesting that they not spend more than two hours on it. The mother's reaction was to state that the boys were willing to continue longer, so why not? It was agreed that I would pass on the question to the reading consultant and let her know what was expected of his work.

The father in the family works at a local school. The family lives in an attractive ranch type home which they have built themselves from scratch. The mother appeared to be rather domineering. She spoke of their family as being very happy, with much love and laughter. She was much interested in the Semantic Differential Test and filled in a form for each of the boys. She commented that though their reading problems were similar she sees each of the boys quite differently. She questions whether this was to be her image of them as students or individuals. It was suggested that the way she saw them as persons would probably be the closest to what was sought throughout the test.

Clinical Worksheet and Progress Report - Social Services (Continued)

When the marking of the tests was completed, the mother asked if the father could fill out one too, as she felt his view of the boys would be quite different from hers. It was agreed this was an interesting proposal, and that I would question our director as to his feelings about this.

Later the same day a conference was held with the consultants from both other services involved (learning and speech), at which time impressions and feelings were exchanged. The reading consultant said that he did not expect, and indeed he preferred, that the parents not work with the materials he gave the children.

Pupil Service Report - Psychological Services

1. Reason for Referral: Student is of average size and weight. Traditionally dressed in the usual school clothes. Very neat and clean. Jean is a very pleasant boy, willing to cooperate and very easy to talk with. He was referred to the Psychological Services from Reading/Learning for an appraisal of the boy's general ability and to ascertain the possibility of any perceptual involvement.
2. Tests Administered:
   Wechsler Intelligence Scale for Children (WISC)
   Bender Gestalt (BG)
3. Interpretation of Tests Administered:

WISC:	Scale Score		Age Equivalent
Verbal	Information	12	11 - 8
	Comprehension	7	7 - 6
	Arithmetic	11	10 - 8
	Similarities	17	16 +
	Vocabulary	11	10 - 2
	Digit Span	10	9 - 10
Performance			
	Picture Completion	10	9 - 6
	Picture Arrangement	15	16 +
	Block Design	14	12 - 8
	Object Assembly	11	10 - 6
	Coding	8	9 - 0

Verbal Scale IQ - 109
Performance Scale IQ - 111
Full Scale IQ - 111

4. Description - Behavior

Jean was very intent on doing exactly what was expected of him, and there was apparent tension in trying to fulfill this. He did not want to be wrong at any time, and found it very difficult to state that he did not know something. In the process of delivering the answers, it was noted that Jean had a very "slushy" speech, and that he had heavy sighs at times when trying to bring forth the correct answer. It was noted that he transposed the figures 72 to 27. Although Jean's vocabulary age level is above his present age level, he of course receives credit for the barest of descriptions of words. This is exactly how Jean responded with various sparse and very limited definitions of the words asked for. In relation to this, as will be noted, the comprehension score of age level is depressed below his present age level. This is a more realistic type of test which usually most children do well on. However, I feel that this has a direct relationship to his inability to verbalize adequately and to describe something properly. It will also be noted that although digit span, picture completion, and coding are close to the age level, they are depressed over the other scores. These are particular tasks which call for intense concentration on the part of the client and this is a task that Jean finds difficult to carry through.

The BG shows no evidence of brain dysfunction or perceptual difficulty. However, Jean was extremely concerned about doing the BG perfectly. Even turned the paper slightly at times to be able to have either his lines or curves in exactly the right position. There seemed to be a lot of tension and he felt the need to do things perfectly.

5. Summary and Recommendation: Jean seems to be under a great deal of tension to perform as others would wish him to. He is very tight and this seems to be affecting his ability to concentrate as well as his ability to give back, to verbalize freely and in a relaxed nature. As this boy has above average intelligence and should be performing at a higher level in school, it is recommended that some methods be found to help this boy relax and to understand that he does have very good abilities. There may have been in the past, or possibly still is, a lot of pressure from the home to perform. This perhaps has caused tension as well as trying to keep up with his classmates. Jean needs to be able to initiate some creative ideas on his own to regain confidence in his own ability. His ego needs to be rebuilt or reinforced, and every opportunity to express himself verbally should be afforded him.

EVALUATION
PART F

COMMENTS BY CLIENTELE SERVED BY THE CENTER

Some non-Center staff members reactions on the services of the Center and the children it has affected.

1. "Re: Progress made in Reading.

V has changed markedly in his attitude toward reading and toward participating in the reading group. He now volunteers to answer questions or explain things to his group. He appears happy and extremely interested and self-confident.

This is a great improvement over his performance last fall, when it appeared that he felt like a failure and was not sure of himself when called on.

V likes to read little books independently now, whereas last fall he was only interested in looking at the pictures in books - then exchanging them for others with pictures.

He is getting very interested in attacking new words, and I find him making good use of his skills."

2. "As a fifth-year, first grade teacher, I have been frustrated by the almost impossible task of reaching all children when teaching a traditional, basal reader program.

I wanted to start an individualized reading program in my room, but didn't quite know how to go about the mechanics of making the changeover. I mentioned my ideas to the Senior Learning Resources Consultant of the C.E.S.C. who was most helpful to me. She loaned me textbooks on individualized instruction, gave freely of time, advice, direction and encouragement.

The change in my classroom has been tremendous. Every one of my reading students is a participating enthusiastic reader, now. Each child is working at a level comfortable for him, and at his own speed. Each child's growth in self reliance and self confidence is reflected in his ability to function where he belongs.

I may add that my self-confidence was helped by the knowledge that I had a competent and willing staff of professionals at the C.E.S.C."

3. "M was referred to the Cooperative Educational Services Center for further evaluation of his perceptual disabilities and for guidance in his social and emotional adjustments. M, a negro boy, had experienced many learning difficulties and retention had not been the solution to his problems. His frustrations of not being able to keep up with his classmates left M with very little desire to perform even simple tasks at his own learning level. M was content to sit and do nothing or, at other times, to disrupt the class to gain attention. Constant supervision was needed on the playground for M was extremely aggressive in his behavior toward other children.

Although M has a long way to go before he is functioning at his own best level, many small changes have taken place since staff members of the C.E.S.C. have been working with him. Self respect is returning, aggressive behavior has almost disappeared. For the first time in his school life, other children are beginning to like him and are extending a helping hand in his direction. A smile has replaced the belligerent scowl. M seems interested in what is going on in the classroom and is very willing to listen. New perceptual materials have been provided but at present, the classroom teacher's load leaves very little time to work with M on an individual basis (for the ideal amount of time required for such instruction). A learning consultant from the C.E.S.C. will continue to work with M on his reading problems. This is a big step in the right direction and it is hoped that even greater aid can be provided for 'all the M's with perceptual and adjustment problems'."

Reactions from some of the administrators of area schools on the services of the Center.

"The Cooperative Educational Services Center has helped us with several serious problems. I'm sure that the specialists would give more service if each were not carrying such a heavy case load.

Principal of an elementary school."

"We at the X School are extremely pleased with the services rendered by your staff to our school community. The psychological and reading facilities and staff which augmented our program were gratifying to us and our students. We were pleased with the caliber of the individuals assigned to the X School and with the results that they appear to be receiving.

There has not been time enough to adequately determine the full impact of the program, especially that of the reading, although our immediate thoughts are positive. We do feel that the next, 1967-68, school year should bring about some real fulfillments in these areas as we all put the services to a more genuine use.

Many of us in guidance have realized with your program the fulfillment of a real need to our part of the state. The services may have a few weaknesses but they are heavily outweighed by their successes.

Counselor, Secondary School."

"It must be noted here that the purpose and objectives of the Center have been achieved thus far. The initiation of those pupil services that were all but neglected before has been accomplished. A teamwork approach to the student problems has been brought to bear on all phases of the academic program. In-service training for the staff, communication with various publics, and cooperative planning are creating understandings and methods to best help the needs of these children.

The friendliness, warmth, and general interest of the consultant staff is easily recognizable by the best judges possible. That is - the eagerness with which they are met by the individual children they are working with. There is no doubt that the children know that someone else is taking an interest in them. This kind of response is success in itself.

Principal, Elementary School".

"The Cooperative Educational Services Center has serviced the X Elementary School for nearly one year. The adjustments necessary for this type of program have been minimal and teaching personnel are responding favorably to the services offered by the Center. The psychological and the speech-hearing services have influenced our programing considerably. We are now able to meet the needs of many children who had previously been unidentified or neglected. A constant and continued expansion of this type of service for our educational program is most important.

Principal, Elementary School".

"For the first time in the history of the ----X---- School, an attempt has been made to provide necessary pupil services. These services have been made available through the Cooperative Educational Services Center located in Winsted, Connecticut. The psychological, speech and hearing, curriculum consultant, and social services rendered have, without question, represented the most progressive step toward solving many of our educational dilemmas. The information, advice, materials, and overall cooperation from the Center and its personnel have been a tremendous asset to the professional staff of the X School in dealing with its responsibilities to three hundred primary level pupils.

Principal, Elementary School".

Reactions from Center staff personnel on feedback they have received.

"It is felt that the project endeavors have exceeded anticipations in the general overall acceptance by teachers, particularly in the K-6 grades. My active and inactive lists for Grades K-6 far exceed any other grade area. It is the feeling of both the members of this project and the teachers, with whom I work, that early diagnosis of learning difficulties is paramount to solving and eliminating the problems. I am pleased with the response of the high schools, which have referred cases to the Center, only after a thorough evaluation of the case with the team at that school. They are aware of their diagnostic limitations, and realize the benefit of a pupil personnel services department to assist them in maintaining effective student adjustment behavior. However, I feel that we may have not measured up to expectations at the Junior High School level, particularly in the public schools. The distinction is made because the parochial schools are very well pleased with our work at all levels. It seems there is an emotional bias operating at this level, which seems to put a student into a role that his previous history and comments from the cumulative record have labeled him. Of course, students soon are keenly aware of the role expected of them and play it accordingly. Perhaps if the personnel at this level were to adhere to the saying 'there are no hopeless situations, just men who have grown hopeless about them,' and take a more positive approach to such casted students, our expectations would be greatly enhanced. Many of them still do not buy the concept of 'individual rate of growth' in the classroom, as being applicable to them.

The greatest change is in the fact that it has given hope and encouragement to teachers, principals, parents and guidance counselors. Now there is an agency which can and will help them with their problems. It may not solve all of them, or effect any immediate change, yet it is working for the school system, bringing individual skills and training to the scene where none had existed previously. As stated at a Board of Directors' meeting 'abandonment of this project would set back education 20 years in the six town district'."

"Perhaps the most gratifying aspect of the work so far has been in the reaction of the children to a short period of approval and success each week. Most of these children have experienced nothing but frustration and disapproval since their school attendance began. In addition, some parents have been persuaded to remove pressure from their reactions to their children's progress in school and this has resulted in happier children who are better able to progress at their own rates.

The combination of services into a team has provided a much more complete picture of a child's problem and allowed an approach for help to be more complete than if each service worked separately. An understanding of the whole picture of a child and his problem gives an opportunity for a more effective program of help from the start."

"The project has received some favorable and some unfavorable reaction in many quarters. As a result of testing and remediation some children have already exhibited positive reactions in behavior as well as performance. The children react with enthusiasm to the 1-to-1 or small-group relationship. Their self-concepts have improved, at least temporarily. For some, working in this manner has been the first time that they have been successful. On the other hand, some teachers who had sought 'relief' feel they are not receiving benefits from the project because they do not feel they have time to implement suggested programs. They feel they do not have time to give the children this attention. This so-called lack of time indicates the need for special attention that the project may afford.

This writer feels that the greatest effects of the project on the educational institutions, the schools, is the stirring up of curiosity, the beginning of awareness of the factors outside of the child's school environment that influence the child's behavior and performance; and the great need for pupil personnel services in this area. In some instances, the most marked effect has been the change in the attitude of the teacher toward the child."

"This consultant feels that at the secondary school level, no large significant results have come about by having a learning consultant work with those students. The only result that can be seen is the change in some pupil attitudes toward school, which may be enough of a reason to continue. Reasons for lack of results is that the existing reading problems have compounded for some 12 to 14 years in these students and one cannot expect a change in reading behavior within a short period of time."

NAMES OF THE ABOVE REACTORS QUOTED IN SECTION G ARE AVAILABLE UPON REQUEST.

NORTHWESTERN CONNECTICUT LOCAL MID AND END YEAR PERCENTILES

For The

WIDE RANGE ACHIEVEMENT TEST

1965 Revision

Edited By

GEORGE M. MURPHY

DIRECTOR

COOPERATIVE EDUCATIONAL SERVICES CENTER

WINSTED, CONNECTICUT

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* * *

ORIGIN OF THE DATA

The tables included in this booklet are derived from a carefully controlled sampling procedure, designed to translate national normative data into norms more relevant in a rural New England area.

Every child in each grade in both public and private schools, Grade I through Grade XII, in a six-town region in Northwestern Connecticut was assigned a number. Thirty (30) numbers were chosen randomly, from One Million Random Digits, by Rand Corporation, for each grade, for each sample, both mid and end year, producing twenty-four (24) separate sets of random numbers. Referred children who had begun to receive CESC service were not included in the sample, nor were children tested more than once (either mid or end year sample) to prevent contamination of the data due to the child's experience with the instrument. The children corresponding to the chosen numbers for their grade were tested at the mid and end year points on the 1965 Revision of the Wide Range Achievement Test (WRAT) by the psychological services and learning-reading sections of the Cooperative Educational Services Center (CESC). Said staff members scored and checked each other's results, and distribution charts were made. (See Appendix for data on the population from which the sample was drawn.)

Cumulative percentile curves were graphed. The resultant tables are direct read-outs of said graphs at the .4 and .7 mark in the school year for each grade respectively.

TYPES OF DATA PRESENTED

In the following pages can be found local percentile equivalents to national norm grade scores for each grade, one through twelve, as well as tables which report the mean ($\bar{X}$) and standard deviations (s) for the sample for all three subject areas on the WRAT, by grade, as well as the average and expected deviations, or grade span (Gs)*, for reading and spelling, which is not specifically reported in the WRAT manual.

* Grade span (Gs) is the distance, in equivalent school years, between the basal score (the score below which all items are considered as passed), and the maximal score (the score above which all items are failed). This researcher has found the measure of Gs to be of valuable assistance in many individual cases. An extremely wide span, more than plus or minus one sGs may be indicative of some problem areas, while an extremely narrow span may have other hints for the teacher.

USE OF THE TABLES

LOCAL PERCENTILES

Score the test as directed by the manual. Compute the testing date, and grade scores in each area, as shown in the manual. In the table below, go to the column headed by the appropriate testing month of the school year, as computed above, and adjust each received grade score by the constant in the table, adding or subtracting as indicated.

	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
Beginning Norms	+0.2	+0.1	0.0	-0.1	-0.2					
Mid-Year Norms			+ .2	+ .1	0.0	- .1	- .2			
End-Year Norms						+0.2	+0.1	0.0	-0.1	-0.2

Enter the appropriate grade level table with the adjusted scores, and read the appropriate local percentile equivalents.

MEANS AND DEVIATION TABLES

Adjusted scores should not be used with the means and deviations tables. The tables indicate only the situation that existed at that time, and can serve as a rough comparison only, except in those cases tested during the comparable month (.1, .4 or .7) that said tables were derived.

MID-YEAR NORMS

MID-YEAR STATISTICS (.4)

WIDE RANGE ACHIEVEMENT TEST

RANDOM SAMPLE

GRADE	READING				SPELLING				ARITHMETIC	
LEVEL	$\bar{X}$	s	$\bar{X}$Gs	sGs	$\bar{X}$	s	$\bar{X}$Gs	sGs	$\bar{X}$	s
1	1.25	1.26	1.10	1.32	1.29	.84	.55	.9	1.6	.69
2	3.38	.93	1.93	.99	2.5	.79	1.39	.98	2.7	.44
3	4.56	3.62	3.54	3.47	3.74	1.88	1.37	1.33	3.31	4.59
4	5.84	2.20	4.25	3.23	4.95	1.49	2.22	1.60	4.42	.542
5	7.30	2.50	4.53	3.09	5.91	1.91	2.27	1.94	5.33	.947
6	7.83	1.98	6.48	3.07	6.44	1.48	3.18	2.16	6.04	1.04
7	9.35	3.36	5.87	3.91	7.4	1.65	3.95	2.35	6.85	1.59
8	12.0	3.15	8.34	3.65	8.55	1.68	3.72	2.02	8.62	2.45
9	10.5	3.09	7.20	4.16	8.96	2.40	5.35	2.36	8.45	1.98
10	11.5	2.23	7.62	3.30	9.90	2.66	5.45	2.72	8.86	1.88
11	12.4	4.44	6.30	2.54	9.75	3.33	5.60	2.84	9.45	1.81
12	12.6	3.17	8.20	3.17	10.9	3.16	5.42	2.50	9.45	2.83

$\bar{X}$: Mean (Average Score)
s : Standard Deviation
XGs: Mean Grade Span (Average Grade Span)
sGs: Standard Deviation of Grade Span

For example, the average 3rd grader received a reading score of 4.5 or 4.6, and measured about 3.5 years between the basal and maximal scores on Reading. Sixty-seven percent of the 3rd graders had reading scores between 0.9 and 8.2. (Use the same approach to analyse Spelling scores and Arithmetic scores.)

MID-YEAR NORMS

WRAT - RAMDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 1

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
Above 4.7	99+				
4.7	99				
3.7	98				
3.6 - 3.2	97				
3.1	96				
3.0	96			30 & up	99+
2.9	96	2.9	98	2.9	99
2.8	95	2.8	97	2.8	98
2.7	94	2.7	97	2.7	98
2.6	94	2.6	96	2.6	97
2.5	93	2.5	96	2.5	97
2.4	92	2.4	95	2.4	96
2.3	91	2.3	93	2.3	91
2.2	91	2.2	91	2.2	86
2.1	90	2.1	89	2.1	80
2.0	89	2.0	87	2.0	75
1.9	89	1.9	84	1.9	68
1.8	86	1.8	79	1.8	60
1.7	83	1.7	72	1.7	50
1.6	81	1.6	66	1.6	41
1.5	78	1.5	60	1.5	32
1.4	75	1.4	53	1.4	28
1.3	68	1.3	48	1.3	24
1.2	60	1.2	44	1.2	21
1.1	50	1.1	40	1.1	18
1.0	40	1.0	36	1.0	14
K.9	32	K.9	32	K.9	11
K.8	28	K.8	28	K.8	10
K.7	22	K.7	24	K.7	9
K.6	19	K.6	20	K.6	8
K.5	14	K.5	15	K.5	7
K.4	10	K.4	11	K.4	7
K.3	10	K.3	10	K.3	7
K.2	10	K.2	10	K.2	6
K.1	9	K.1	10	K.1	6
K.0	9	K.0	10	K.0	6
PK.9	8	PK.9	9	PK.9	6
PK.8	8	PK.8	9	PK.8	5
PK.7	7	PK.7	8	PK.7	5
PK.6	7	PK.6	8	PK.6	5
PK.5	6	PK.5	8	PK.5	5
PK.4	6	PK.4	8	PK.4	5
PK.3	5	PK.3	7	PK.3	4
PK.2	5	PK.2	6	PK.2	4
PK.1	4	PK.1	5	PK.1	4
PK.0	4	PK.0	4	PK.0	4

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 1
(Contd)

READING

Gr. Score	Percentile
N.9	3
N.8	3
N.7	3
N.6	2
N.5	2
N.4	2
N.3	1
N.2	1
N.1	1

SPELLING

Gr. Score	Percentile
N.9	3
N.8	3
N.7	3
N.6	2
N.5	2
N.4	2

ARITHMETIC

Gr. Score	Percentile
N.9	4
N.8	3
N.7	3
N.6	3
N.5	2
N.4	2
N.3	2
N.2	1 or less

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 2

READING

Gr. Score	percentile
5.4 & up	99+
5.3	99
5.2	98
5.1	98
5.0	97
4.9	97
4.8	95
4.7	94
4.6	91
4.5	89
4.4	86
4.3	82
4.2	78
4.1	73
4.0	69
3.9	64
3.8	64
3.7	63
3.6	62
3.5	61
3.4	61
3.3	58
3.2	53
3.1	48
3.0	43
2.9	38
2.8	33
2.7	28
2.6	23
2.5	18
2.4	14
2.3	12
2.2	9
2.1	6
2.0	5
1.9	4
1.8	3
1.7	3
1.6	2
1.5	2
1.4	1
Under 1.3	1 or lower

SPELLING

Gr. Score	Percentile
4.5 & up	99+
4.4	99
4.3	99
4.2	98
4.1	97
4.0	97
3.9	96
3.8	95
3.7	94
3.6	92
3.5	90
3.4	89
3.3	85
3.2	80
3.1	76
3.0	72
2.9	68
2.8	62
2.7	58
2.6	51
2.5	45
2.4	39
2.3	33
2.2	28
2.1	22
2.0	16
1.9	11
1.8	10
1.7	9
1.6	8
1.5	8
1.4	7
1.3	7
1.2	6
1.1	6
1.0	6
K.9	5
K.8	5
K.7	5
K.6	4
K.5	4
K.4	4
K.3	3
K.2	2
K.1	1
K.0	Under 1

ARITHMETIC

Gr. Score	Percentile
3.9 & up	99+
3.8	99
3.7	99
3.6	98
3.5	98
3.4	97
3.3	96
3.2	96
3.1	86
3.0	76
2.9	68
2.8	63
2.7	58
2.6	53
2.5	40
2.4	27
2.3	15
2.2	12
2.1	10
2.0	7
1.9	6
1.8	5
1.7	4
1.6	2
1.5 and Below	Under 1

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 3

READING

Gr. Score	Percentile
9.7 & up	99+
9.6	99
9.5	98
9.4	96
9.3-9.2	94
9.1-9.0	93
8.9-8.8	92
8.7-8.6	91
8.5-8.4	90
8.3-8.0	89
7.9-7.7	88
7.6-7.2	87
7.1-6.8	86
6.7-6.4	85
6.3-6.2	84
6.1-5.9	83
5.8	82
5.7-5.6	81
5.5	80
5.4	79
5.3	78
5.2	77
5.1	75
5.0	74
4.9	72
4.8	68
4.7	65
4.6	62
4.5-4.4	58
4.3-4.2	57
4.1-4.0	56
3.9	55
3.8	52
3.7	50
3.6	47
3.5	44
3.4	41
3.3	39
3.2	36
3.1	33
3.0	30
2.9	27
2.8	23
2.7	20
2.6	16
2.5	14
2.4	11

SPELLING

Gr. Score	Percentile
9.8 & up	99+
9.7-9.0	98
8.9-8.0	97
7.9-7.4	96
7.3-7.0	95
6.9-6.5	94
6.4	93
6.3	92
6.2	91
6.1-5.9	90
5.8-5.7	89
5.6-5.5	88
5.4-5.3	87
5.2-5.1	86
5.0-4.9	85
4.8	84
4.7	83
4.6	81
4.5	80
4.4	79
4.3-4.2	78
4.1	77
4.0	76
3.9	75
3.8	68
3.7	63
3.6	57
3.5	50
3.4	45
3.3	44
3.2	42
3.1	41
3.0	40
2.9	39
2.8	34
2.7	31
2.6	27
2.5	24
2.4	20
2.3	17
2.2	14
2.1	11
2.0	8
1.9	6
1.8-1.7	5
1.6-1.5	4
1.4	3

ARITHMETIC

Gr. Score	Percentile
4.3 & up	99+
4.2	99
4.1	96
4.0	93
3.9	89
3.8	85
3.7	80
3.6	75
3.5	69
3.4	64
3.3	58
3.2	50
3.1	42
3.0	34
2.9	29
2.8	24
2.7	19
2.6	14
2.5	9
2.4	4
2.3	3
2.2	2
2.1	1
2.0	1
1.9 and Below	Under 1

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 3
(Contd)

READING

Gr. Score	Percentile
2.3	8
2.2	6
2.1	4
2.0	1
2.0 and Below	Under 1

SPELLING

Gr. Score	Percentile
1.3-1.2	2
1.1	1
1.0 and Below	Under 1

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 4

READING

Gr. Score	Percentile
10.6 & up	99+
10.5	99
10.4-10.3	98
10.2-10.0	97
9.9- 9.8	96
9.7	95
9.6	94
9.5	93
9.4- 9.2	92
9.1- 9.0	91
8.9- 8.5	90
8.4	89
8.3	88
8.2	86
8.1	85
8.0	84
7.9	82
7.8	81
7.7	79
7.6	78
7.5	76
7.4	75
7.3	74
7.2	72
7.1	71
7.0	69
6.9	68
6.8	66
6.7	65
6.6	63
6.5	62
6.4	60
6.3	59
6.2	58
6.1	56
6.0	55
5.9- 5.8	53
5.7	52
5.6- 5.5	51
5.4	50
5.3	48
5.2	46
5.1	44
5.0	41
4.9	39
4.8	38
4.7	36
4.6	35
4.5	34

SPELLING

Gr. Score	Percentile
9.0 & up	99+
8.9-8.6	99
8.5-8.4	98
8.3-8.2	97
8.1-7.8	96
7.7-7.5	95
7.4-7.2	94
7.1-6.9	93
6.8	91
6.7	90
6.6	88
6.5	87
6.4	86
6.3	82
6.2	78
6.1	75
6.0	71
5.9	68
5.8	67
5.7-5.6	66
5.5	65
5.4	64
5.3	63
5.2	62
5.1	60
5.0	59
4.9	57
4.8-4.7	56
4.6	55
4.5	54
4.4	53
4.3	49
4.2	44
4.1	39
4.0	33
3.9	29
3.8	25
3.7	21
3.6	18
3.5	14
3.4	11
3.3	9
3.2	8
3.1	7
3.0	5
2.9-2.8	3
2.7-2.6	2
2.5-2.3	1
2.2 & Below	Under 1

ARITHMETIC

Gr. Score	Percentile
5.6 & up	99+
5.5	99
5.4	97
5.3	95
5.2	92
5.1	91
5.0	90
4.9	89
4.8	81
4.7	73
4.6	64
4.5	55
4.4	47
4.3	39
4.2	34
4.1	30
4.0	25
3.9	20
3.8	15
3.7	11
3.6	10
3.5	9
3.4	8
3.3	5
3.2	3
3.1	1
3.0	1
2.9 and Below	Under 1

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 4
(Contd)

READING

Gr. Score	Percentile
4.4	32
4.3	31
4.2	29
4.1	28
4.0	26
3.9	25
3.8	23
3.7	21
3.6	19
3.5	16
3.4	14
3.3	13
3.2	12
3.1	10
3.0	9
2.9	7
2.8	6
2.7	4
2.6	3
2.5	1
2.4 and Below	Under 1

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 5

READING

Gr. Score	Percentile
13.4-12.8	99+
12.7-12.0	98
11.9-11.4	97
11.3-10.8	96
10.7-10.6	95
10.5-10.4	94
10.3	93
10.2	92
10.1	91
10.0	90
9.9	89
9.8	88
9.7	87
9.6	86
9.5	84
9.4	83
9.3	81
9.2	79
9.1	77
9.0	74
8.9	72
8.8	71
8.7	69
8.6	68
8.5	67
8.4	65
8.3	63
8.2	61
8.1	59
8.0	57
7.9	55
7.8	54
7.7	52
7.5	50
7.4	49
7.3	48
7.2	47
7.1	46
7.0	45
6.9-6.7	44
6.8-6.4	43
6.3-6.1	42
6.0-5.9	41
5.8	38
5.7	35
5.6	31
5.5	28
5.4	24

SPELLING

Gr. Score	Percentile
11.9-11.4	99+
11.3-10.8	98
10.7-10.2	97
10.1- 9.8	96
9.5- 9.7	95
9.4- 9.2	94
9.1- 8.9	93
8.8	92
6.7	91
8.6- 8.5	90
8.4	89
8.3- 8.2	88
8.1	87
8.0- 7.9	86
7.8- 7.6	85
7.5- 7.3	84
7.2- 7.0	83
6.9	82
6.8	80
6.7	78
6.6	76
6.5	74
6.4	72
6.3	70
6.2	68
6.1	66
6.0	64
5.9	62
5.8	60
5.7	58
5.6	56
5.5	53
5.4	51
5.3	46
5.2	41
5.1	36
5.0	30
4.9	24
4.8	21
4.7	18
4.6	16
4.5	13
4.4	10
4.3- 4.1	9
4.0- 3.8	8
3.7- 3.5	7
3.4- 3.1	6
3.0- 2.7	5

ARITHMETIC

Gr. Score	Percentile
7.8-7.5	99+
7.4-7.2	98
7.1-7.0	97
6.9-6.8	96
6.7	95
6.6	93
6.5	92
6.4	88
6.3	84
6.2	78
6.1	77
6.0	76
5.9	75
5.8	72
5.7	70
5.6	67
5.5	62
5.4	58
5.3	53
5.2	48
5.1	43
5.0	39
4.9	36
4.8	32
4.7	28
4.6	25
4.5	21
4.4	17
4.3	16
4.2	15
4.1	14
4.0	13
3.9	11
3.8	10
3.7	9
3.6	8
3.5	7
3.4	6
3.3	4
3.2	3
3.1	1
3.0 and Below	Under 1

MID-YEAR NORMS

WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 5
(Contd)

READING

Gr. Score	Percentile
5.3	23
5.2	21
5.1	20
5.0	19
4.9	17
4.8	16
4.7	15
4.6	13
4.5	12
4.4-4.2	10
4.1-3.8	9
3.7-3.5	8
3.4-3.1	7
3.0-2.8	6
2.7	5
2.6-2.5	4
2.4	3
2.3-2.2	2
2.1	1
2.0 and Below	Under 1

SPELLING

Gr. Score	Percentile
2.6-2.2	4
2.1-1.9	3
1.8	2
1.7	1
1.6 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 6

SPELLING

Gr. Score	Percentile
9.3 & up	99+
9.2-9.1	98
9.0	97
8.9	96
8.8-8.7	95
8.6	94
8.5	93
8.4-8.3	92
8.2	91
8.1	90
8.0-7.9	89
7.8	87
7.7	86
7.6	84
7.5	83
7.4	81
7.3	76
7.2	71
7.1	66
7.0	60
6.9	55
6.8	54
6.7	52
6.6	51
6.5	50
6.4	48
6.3	46
6.2	43
6.1	41
6.0	39
5.9	37
5.8	34
5.7	30
5.6	26
5.5	22
5.4	19
5.3	18
5.2	17
5.1	16
5.0-4.9	15
4.8	14
4.7-4.6	13
4.5	12
4.4	11
4.3-4.2	10
4.1	9
4.0	8
3.9-3.8	7
3.7	6
3.6	5
3.5-3.4	4
3.3	3
3.2	2
3.1	1
3.0 and Below	Under 1

READING

Gr. Score	Percentile
12.5	99+
12.4-12.0	98
11.9-11.5	97
11.4-11.0	96
10.9-10.7	95
10.6-10.5	94
10.4-10.2	93
10.1- 9.8	92
9.7- 9.5	91
9.4- 9.2	90
9.1- 8.9	89
8.8	85
8.7	81
8.6	78
8.5	74
8.4	70
8.3	69
8.2	68
8.1	66
8.0	65
7.9	63
7.8	58
7.7	55
7.6	49
7.5	45
7.4	41
7.3- 7.1	39
7.0- 6.9	38
6.8- 6.7	37
6.6	31
6.5	29
6.4	26
6.3	22
6.2	18
6.1	15
6.0	11
5.9	7
5.8- 5.7	6
5.6	5
5.5	4
5.4	3
5.3	2
5.2	1
5.1	1
5.0 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
8.0 & up	99+
7.9-7.8	98
7.7	97
7.6-7.5	96
7.4	94
7.3	93
7.2	92
7.1	91
7.0	90
6.9	89
6.8	82
6.7	77
6.6	70
6.5	68
6.4	66
6.3	63
6.2	58
6.1	53
6.0	49
5.9	44
5.8	39
5.7	33
5.6	30
5.5	26
5.4	22
5.3	21
5.2	20
5.1	19
5.0	17
4.9	16
4.8	15
4.7	13
4.6	12
4.5	11
4.4	10
4.3-4.2	9
4.1-4.0	8
3.9	7
3.8	6
3.7	5
3.6	4
3.5-3.4	3
3.3-3.2	2
3.1	1
3.0 and Below	Under 1

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 7

READING

Gr. Score	Percentile
15.9-15.7	99+
15.6-15.5	98
15.4-15.3	97
15.2-15.1	96
15.0-14.9	95
14.8	94
14.7-14.5	93
14.4-14.3	92
14.2-14.1	91
14.0-13.9	90
13.8	89
13.7-13.6	88
13.5	87
13.4-13.3	86
13.2	85
13.1-13.0	84
12.9-12.8	83
12.7-12.5	82
12.4-12.2	81
12.1-11.9	80
11.8-11.6	79
11.5-11.3	78
11.2-11.0	77
10.9	76
10.8	75
10.7	74
10.6	72
10.5	71
10.4	70
10.3	69
10.2	67
10.1	66
10.0	65
9.9	63
9.8	62
9.7	59
9.6	57
9.5	55
9.4	53
9.3	51
9.2	49
9.1	47
9.0	45
8.9	43
8.8- 8.7	42
8.6	41
8.5- 8.4	40
8.3	39

SPELLING

Gr. Score	Percentile
10.4	99+
10.3	98
10.2	96
10.1	94
10.0	92
9.9	90
9.8	89
9.7-9.6	88
9.5	87
9.4	86
9.3	85
9.2	84
9.1	82
9.0	81
8.9	80
8.8	78
8.7	77
8.6	76
8.5	74
8.4	73
8.3	71
8.2	69
8.1	67
8.0	65
7.9	63
7.8	62
7.7	60
7.6	59
7.5	58
7.4	56
7.3	53
7.2	50
7.1	46
7.0	43
6.9	40
6.8	37
6.7	34
6.6	32
6.5	29
6.4	26
6.3	25
6.2	24
6.1	23
6.0	21
5.9	20
5.8	19
5.7	18
5.6	17

ARITHMETIC

Gr. Score	Percentile
10.9-10.8	99+
10.7	98
10.6-10.5	97
10.4-10.2	96
10.1- 9.9	95
9.8- 9.6	94
9.5- 9.3	93
9.2- 9.0	92
9.1- 8.7	91
8.6- 8.4	90
8.3	88
8.2	87
8.1	86
8.0	85
7.9	83
7.8	82
7.7	80
7.6	79
7.5	78
7.4	76
7.3	73
7.2	70
7.1	66
7.0	63
6.9	60
6.8	53
6.7	48
6.6	42
6.5	36
6.4	30
6.3	28
6.2	26
6.1	24
6.0	22
5.9	20
5.8	18
5.7	17
5.6	16
5.5	15
5.4	13
5.3	12
5.2	11
5.1	9
5.0	8
4.9-4.5	6
4.4-3.7	5
3.6-2.8	4
2.7-2.4	3

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 7
(Contd)

READING

Gr. Score	Percentile
8.2-8.1	38
8.0	37
7.9	36
7.8-7.7	35
7.6-7.5	34
7.4	33
7.3-7.2	32
7.1	31
7.0-6.9	30
6.8	29
6.7	27
6.6	26
6.5	24
6.4	23
6.3	20
6.2	18
6.1	15
6.0	12
5.9	10
5.8	9
5.7	8
5.6-5.5	7
5.4	6
5.3-5.2	5
5.1	4
5.0	3
4.9-4.8	2
4.7-4.6	1
4.5 and Below	Under 1

SPELLING

Gr. Score	Percentile
5.5	16
5.4	15
5.3	14
5.2	13
5.1	12
5.0	11
4.9	10
4.8	8
4.7	7
4.6	6
4.5	4
4.4	3
4.3	2
4.2	1
4.1 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
2.3	2
2.2-2.1	1
2.0 and Below	Under 1

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 8

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
18.9-18.8	99+	12.9-12.8	99+	14.9-14.7	99+
18.7	98	12.7-12.6	98	14.6-14.4	98
18.6-18.5	97	12.5-12.4	97	14.3-14.1	97
18.4-18.3	96	12.3-12.2	96	14.0-13.7	96
18.2	95	12.1-12.0	95	13.6-13.5	95
18.1-18.0	94	11.9-11.8	94	13.4-13.2	94
17.9-17.8	93	11.7-11.6	93	13.1-12.9	93
17.7-17.2	92	11.5-11.4	92	12.8-12.6	92
17.1-16.7	91	11.3-11.2	91	12.5-12.3	91
16.6-16.2	90	11.1-11.0	90	12.2-12.1	90
16.1-15.9	89	10.9	89	12.0-11.8	89
15.8	88	10.8	88	11.7-11.4	88
15.7	87	10.7	87	11.3-11.1	87
15.6	86	10.6	86	11.0-10.9	86
15.5	85	10.5	85	10.8	84
15.4	84	10.4	84	10.7	83
15.3	83	10.3	83	10.6	82
15.2	82	10.2	82	10.5	80
15.1	81	10.1	81	10.4	79
15.0	80	10.0	80	10.3	78
14.9	79	9.9	79	10.2	76
14.8	78	9.8	77	10.1	75
14.7	77	9.7	76	10.0	73
14.6	76	9.6	74	9.9	72
14.5	75	9.5	72	9.8	71
14.4	74	9.4	70	9.7	70
14.3	73	9.3	69	9.6	69
14.2	72	9.2	67	9.5	68
14.1	71	9.1	65	9.4	67
14.0	70	9.0	63	9.3	66
13.9-13.8	68	8.9	62	9.2	65
13.7	67	8.8	60	9.1	64
13.6-13.5	66	8.7	59	9.0	63
13.4	65	8.6	58	8.9	62
13.3-13.2	64	8.5	56	8.8	60
13.1	63	8.4	55	8.7	59
13.0-12.9	62	8.3	54	8.6	57
12.8	60	8.2	52	8.5	56
12.7	59	8.1	51	8.4	55
12.6	58	8.0	49	8.3	53
12.5	56	7.9	48	8.2	52
12.4	55	7.8	45	8.1	51
12.3	54	7.7	42	8.0	49
12.2	52	7.6	38	7.9	48
12.1	51	7.5	35	7.8	46
12.0	50	7.4	32	7.7	44
11.9	48	7.3	29	7.6	43
11.8	47	7.2	26	7.5	41

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 8
(Contd)

READING

Gr. Score	Percentile
11.7	46
11.6	45
11.5	44
11.4	43
11.3	42
11.2	41
11.1	40
11.0	39
10.9	37
10.8	36
10.7	35
10.6	34
10.5	33
10.4	32
10.3	31
10.2	30
10.1	29
10.0	28
9.9	27
9.8-9.7	26
9.6	25
9.5-9.4	24
9.3	23
9.2	22
9.1-9.0	21
8.9	20
8.8-8.7	19
8.6	18
8.5-8.4	17
8.3	16
8.2-8.1	15
8.0	14
7.9	13
7.8	12
7.7	11
7.6	10
7.5	9
7.4	8
7.3	7
7.2	6
7.1	5
7.0	4
6.9-6.8	3
6.7-6.5	2
6.4-6.3	1
6.2 and Below	Under 1

SPELLING

Gr. Score	Percentile
7.1	23
7.0	20
6.9	17
6.8	15
6.7	14
6.6	13
6.5	11
6.4	10
6.3	9
6.2	7
6.1	6
6.0	4
5.9-5.8	3
5.7-5.5	2
5.4-5.3	1
5.2 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
7.4	39
7.3	37
7.2	36
7.1	34
7.0	32
6.9	30
6.8	28
6.7	25
6.6	23
6.5	21
6.4	18
6.3	16
6.2	14
6.1	11
6.0	9
5.9	6
5.8-5.7	5
5.6	4
5.5	3
5.4-5.3	2
5.2	1
5.1 and Below	Under 1

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 9

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
15.9	99+	14.9-14.7	99+	12.9-12.6	99+
15.8	98	14.6-14.4	98	12.5-12.4	98
15.7	97	14.3-14.1	97	12.3-12.1	97
15.6	96	14.0-13.8	96	12.0-11.9	96
15.5	95	13.7-13.5	95	11.8-11.7	95
15.4	94	13.4-13.1	94	11.6	94
15.3	93	13.0-12.9	93	11.5	93
15.2	92	12.8	92	11.4-11.3	92
15.1	91	12.7-12.6	91	11.2	91
15.0	90	12.5	90	11.1	90
14.9	89	12.4-12.3	89	11.0-10.9	89
14.8	88	12.2	88	10.8	87
14.7	87	12.1-12.0	87	10.7	85
14.6	86	11.9	86	10.6	84
14.5	85	11.8-11.7	85	10.5	82
14.4	84	11.6	84	10.4	80
14.3	83	11.5-11.4	83	10.3	78
14.2	82	11.3	82	10.2	76
14.1	81	11.2	81	10.1	75
14.0	80	11.1-11.0	80	10.0	73
13.9	79	10.9	79	9.9- 9.8	71
13.8	78	10.8	78	9.7- 9.6	70
13.7	77	10.7-10.6	77	9.5- 9.3	69
13.6	76	10.5	76	9.2- 9.1	68
13.5	75	10.4-10.3	75	9.0- 8.9	67
13.4	74	10.2	74	8.8	65
13.3	73	10.1	73	8.7	62
13.2	71	10.0- 9.9	72	8.6	60
13.1	70	9.8	71	8.5	57
13.0	69	9.7	68	8.4	55
12.9-12.7	68	9.6	67	8.3	52
12.6-12.4	67	9.5	65	8.2	50
12.3-12.1	66	9.4	63	8.1	47
12.0-11.9	65	9.3	62	8.0	45
11.8-11.7	64	9.2	60	7.9	42
11.6	63	9.1	58	7.8	40
11.5-11.4	62	9.0	57	7.7	38
11.3	61	8.9	55	7.6	36
11.2	60	8.8	53	7.5	34
11.1-11.0	59	8.7	51	7.4	32
10.9-10.8	58	8.6	49	7.3	30
10.7-10.5	57	8.5	47	7.2	27
10.4-10.2	56	8.4	45	7.1	25
10.1- 9.9	55	8.3	43	7.0	23
9.8	52	8.2	41	6.9- 6.8	21
9.7	49	8.1	38	6.7	20
9.6	47	8.0	36	6.6- 6.5	19

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 9
(CONTD)

READING

Gr. Score	Percentile
9.5	44
9.4	41
9.3	38
9.2	36
9.1	33
9.0	30
8.9	27
8.8-8.7	26
8.6	25
8.5-8.4	24
8.3	23
8.2-8.1	22
8.0	21
7.9	20
7.8-7.7	19
7.6	18
7.5-7.4	17
7.3	16
7.2-7.1	15
7.0	14
6.9	13
6.8-6.7	12
6.6	11
6.5-6.4	10
6.3	9
6.2-6.1	8
6.0	7
5.9	6
5.8-5.7	5
5.6	4
5.5	3
5.4-5.3	2
5.2	1
5.1 and Below	Under 1

SPELLING

Gr. Score	Percentile
7.9	34
7.8	32
7.7	31
7.6	30
7.5	29
7.4	27
7.3	26
7.2	24
7.1	23
7.0	22
6.9	20
6.8	19
6.7	17
6.6	16
6.5	15
6.4	13
6.3	12
6.2	10
6.1	9
6.0	8
5.9-5.7	6
5.6-5.4	5
5.3-5.1	4
5.0-4.8	3
4.7-4.5	2
4.4-4.3	1
4.2 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
6.4-6.3	18
6.2	17
6.1-6.0	16
5.9-5.8	15
5.7-5.6	14
5.5	13
5.4-5.3	12
5.2-5.1	11
5.0	10
4.9-4.8	9
4.7-4.6	8
4.5	7
4.4-4.3	6
4.2-4.1	5
4.0	4
3.9-3.7	3
3.6-3.5	2
3.4-3.3	1
3.2 and Below	Under 1

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 10

READING

Gr. Score	Percentile
14.9	99+
14.8	98
14.7	97
14.6	96
14.5	94
14.4	93
14.3	92
14.2	90
14.1	89
14.0	88
13.9	86
13.8	85
13.7	84
13.6	83
13.5	82
13.4	81
13.3	79
13.2	78
13.1	77
13.0	76
12.9	75
12.8	73
12.7	71
12.6	68
12.5	66
12.4	63
12.3	61
12.2	59
12.1	56
12.0	54
11.9	51
11.8	49
11.7	48
11.6	46
11.5	44
11.4	43
11.3	41
11.2	39
11.1	38
11.0	36
10.9	34
10.8-10.7	33
10.6	32
10.5-10.4	31
10.3	30
10.2	29
10.1-10.0	28

SPELLING

Gr. Score	Percentile
13.9-13.8	99+
13.7-13.6	98
13.5	97
13.4-13.3	96
13.2	95
13.1	94
13.0-12.9	93
12.8	91
12.7	89
12.6	87
12.5	85
12.4	83
12.3	81
12.2	79
12.1	77
12.0	74
11.9	73
11.8	71
11.7	70
11.6	68
11.5	67
11.4	65
11.3	64
11.2	63
11.1	61
11.0	60
10.9	58
10.8	57
10.7	56
10.6	55
10.5	54
10.4	53
10.3	52
10.2	51
10.1	50
10.0	49
9.9	48
9.8	46
9.7	45
9.6	44
9.5	42
9.4	41
9.3	40
9.2	38
9.1	37
9.0	36
8.9-8.8	34

ARITHMETIC

Gr. Score	Percentile
14.9-14.1	99+
14.0-13.1	98
13.0-12.3	97
12.2-11.9	96
11.8-11.7	95
11.6	94
11.5	93
11.4-11.3	92
11.2-11.1	91
11.0	90
10.9	89
10.8	87
10.7	85
10.6	83
10.5	81
10.4	79
10.3	77
10.2	75
10.1	72
10.0	70
9.9	68
9.8	67
9.7	66
9.6	65
9.5	64
9.4	63
9.3	62
9.2	61
9.1	60
9.0	59
8.9	58
8.8	56
8.7	54
8.6	52
8.5	50
8.4	48
8.3	46
8.2	44
8.1	42
8.0	39
7.9	37
7.8	35
7.7	32
7.6	30
7.5	28
7.4	25
7.3	23

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 10
(CONTD)

READING

Gr. Score	Percentile
9.9	27
9.8	26
9.7	24
9.6	23
9.5	22
9.4	20
9.3	19
9.2	17
9.1	16
9.0	15
8.9-8.7	13
8.6-8.4	12
8.3-8.1	11
8.0-7.9	10
7.8-7.7	9
7.6	8
7.5-7.4	7
7.3	6
7.2-7.1	5
7.0	4
6.9-6.8	3
6.7-6.6	2
6.5-6.3	1
6.2 and Below	Under 1

SPELLING

Gr. Score	Percentile
8.7-8.5	33
8.4-8.2	32
8.1-7.9	31
7.8	29
7.7	27
7.6	25
7.5	24
7.4	22
7.3	20
7.2	18
7.1	17
7.0	15
6.9	13
6.8-6.7	12
6.6	11
6.5-6.4	10
6.3	9
6.2-6.1	8
6.0	7
5.9-5.7	6
5.6-5.4	5
5.3-5.0	4
4.9-4.8	3
4.7-4.5	2
4.4-4.3	1
4.2 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
7.2	21
7.1	18
7.0	16
6.9	13
6.8	12
6.7	10
6.6	9
6.5	7
6.4	6
6.3	4
6.2	2
6.1	1
6.0 and Below	Under 1

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 11

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
18.9	99+	15.9-15.7	99+	13.9-13.6	99+
18.8	97	15.6-15.4	98	13.5-13.4	98
18.7	95	15.3-15.1	97	13.3-13.1	97
18.6	93	15.0-14.9	96	13.0-12.8	96
18.5	92	14.8-14.6	95	12.7-12.6	95
18.4	90	14.5-14.3	94	12.5-12.3	94
18.3	88	14.2-14.1	93	12.2-12.0	93
18.2	86	14.0-13.9	92	11.8	92
18.1	84	13.8	91	11.7	91
18.0	82	13.7	89	11.6	90
17.9-17.6	80	13.6	88	11.5	89
17.5-17.1	79	13.5	86	11.4	88
17.0-16.6	78	13.4	84	11.3-11.2	87
16.5-16.1	77	13.3	83	11.1	86
16.0-15.9	76	13.2	81	11.0	85
15.8	75	13.1	80	10.9	84
15.7	73	13.0	78	10.8	82
15.6	72	12.9	77	10.7	79
15.5	70	12.8	75	10.6	76
15.4	69	12.7	74	10.5	73
15.3	67	12.6	72	10.4	71
15.2	66	12.5	70	10.3	68
15.1	64	12.4	69	10.2	65
15.0	63	12.3	67	10.1	63
14.9-14.8	61	12.2	66	10.0	60
14.7-14.6	60	12.1	64	9.9	57
14.5-14.3	59	12.0	63	9.8	55
14.2-14.0	58	11.9	61	9.7	53
13.9-13.8	57	11.8	60	9.6	51
13.7-13.5	56	11.7	59	9.5	48
13.4-13.3	55	11.6	58	9.4	46
13.2-13.0	54	11.5	57	9.3	44
12.9-12.8	53	11.4	56	9.2	41
12.7-12.5	52	11.3	54	9.1	39
12.4-12.2	51	11.2	53	9.0	37
12.1-11.9	50	11.1	52	8.9	34
11.8	48	11.0	51	8.8	33
11.7	47	10.9	50	8.7	32
11.6	46	10.8-10.7	49	8.6	31
11.5	45	10.6-10.4	48	8.5	30
11.4	44	10.3-10.1	47	8.4	29
11.3	43	10.0- 9.9	46	8.3	27
11.2	42	9.8	44	8.2	26
11.1	40	9.7	43	8.1	25
11.0	39	9.6	41	8.0	24
10.9-10.7	38	9.5	40	7.9	23
10.6-10.2	37	9.4	38	7.8	22

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 11
(Contd)

READING

Gr. Score	Percentile
10.1- 9.7	36
9.6- 9.2	35
9.1- 8.9	34
8.8	32
8.7	30
8.6	28
8.5	27
8.4	25
8.3	23
8.2	21
8.1	19
8.0	17
7.9- 7.8	15
7.7- 7.6	14
7.5- 7.3	13
7.2- 7.0	12
6.9- 6.8	11
6.7- 6.5	10
6.4- 6.3	9
6.2- 6.0	8
5.9	7
5.8- 5.7	6
5.6	5
5.5	4
5.4	3
5.3	2
5.2- 5.1	1
5.0 and Below	Under 1

SPELLING

Gr. Score	Percentile
9.3	36
9.2	35
9.1	33
9.0	32
8.9	30
8.8	29
8.7-8.6	28
8.5	27
8.4-8.3	26
8.2	25
8.1	24
8.0-7.9	23
7.8-7.7	22
7.6-7.4	21
7.3-7.1	20
7.0-6.9	19
6.8-6.6	18
6.5-6.3	17
6.2-6.1	16
6.0-5.8	15
5.7-5.6	14
5.5-5.3	13
5.2-5.0	12
4.9	11
4.8	10
4.7	8
4.6	7
4.5	6
4.4	4
4.3	3
4.2	2
4.1	1
4.0 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
7.7	20
7.6	19
7.5	18
7.4	17
7.3	16
7.2	15
7.1	14
7.0	12
6.9	11
6.8	10
6.7	9
6.6	7
6.5	6
6.4	5
6.3	3
6.2	2
6.1	1
6.0 and Below	Under 1

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles
GRADE 12

READING

Gr. Score	Percentile
18.9 - 18.6	99+
18.5 - 18.4	98
18.3 - 18.1	97
18.0 - 17.9	96
17.8 - 17.6	95
17.5 - 17.3	94
17.2 - 17.0	93
16.9	92
16.8 - 16.7	91
16.6	90
16.5	89
16.4 - 16.3	88
16.2	87
16.1	86
16.0 - 15.9	85
15.8	84
15.7	82
15.6	80
15.5	79
15.4	78
15.3	76
15.2	75
15.1	73
15.0	72
14.9	70
14.8	69
14.7	68
14.6	67
14.5	66
14.4	65
14.3	64
14.2	63
14.1	62
14.0	60
13.9	59
13.8 - 13.7	58
13.6	57
13.5	56
13.4 - 13.3	55
13.2	54
13.1	53
13.0	52
12.9 - 12.8	51
12.7 - 12.5	50
12.4 - 12.2	49
12.1 - 11.9	48
11.8	47
11.7	46
11.6	45
11.5	43

SPELLING

Gr. Score	Percentile
15.9 - 15.8	99+
15.7	98
15.6	96
15.5	95
15.4	94
15.3	93
15.2	92
15.1	91
15.0	90
14.9	89
14.8	87
14.7	86
14.6	84
14.5	83
14.4	81
14.3	80
14.2	78
14.1	77
14.0	75
13.9	74
13.8 - 13.6	73
13.5 - 13.3	72
13.2 - 13.1	71
13.0 - 12.9	70
12.8	69
12.7	68
12.6	67
12.5	66
12.4	64
12.3	63
12.2	62
12.1	61
12.0	60
11.9 - 11.8	59
11.7 - 11.6	58
11.5 - 11.3	57
11.2 - 11.0	56
10.9	55
10.8	54
10.7	52
10.6	50
10.5	48
10.4	46
10.3	44
10.2	42
10.1	41
10.0	39
9.9	37
9.8	36
9.7	35

ARITHMETIC

Gr. Score	Percentile
16.9 - 16.0	99+
15.9 - 15.3	98
15.2 - 14.5	97
14.4 - 13.9	96
13.8 - 13.6	95
13.5 - 13.3	94
13.2 - 13.1	93
13.0 - 12.9	92
12.8	91
12.7	89
12.6	88
12.5	86
12.4	85
12.3	83
12.2	82
12.1	81
12.0	80
11.9	77
11.8	76
11.7	75
11.6	74
11.5	73
11.4	72
11.3	71
11.2	70
11.1	68
11.0	67
10.9	66
10.8	65
10.7	64
10.6	63
10.5	62
10.4	61
10.3	60
10.2	59
10.1	58
10.0	56
9.9	55
9.8	54
9.7	53
9.6	52
9.5	51
9.4	50
9.3	48
9.2	47
9.1	46
9.0	45
8.9 - 8.8	44
8.7 - 8.5	43
8.4 - 8.3	42

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles
GRADE 12
(Cont)

READING

Gr. Score	Percentile
11.4	42
11.3	41
11.2	40
11.1	39
11.0	38
10.9	37
10.8	35
10.7	34
10.6	32
10.5	31
10.4	29
10.3	28
10.2	26
10.1	25
10.0	23
9.9- 9.8	22
9.7- 9.6	21
9.5- 9.3	20
9.2- 9.0	19
8.9	18
8.8	17
8.7	15
8.6	14
8.5	12
8.4	11
8.3	9
8.2	8
8.1	6
8.0	5
7.9- 7.8	3
7.7- 7.5	2
7.4- 7.2	1
7.1 and Below	Under 1

SPELLING

Gr. Score	Percentile
9.6	34
9.5	33
9.4-9.3	32
9.2	31
9.1	30
9.0	29
8.9	28
8.8	26
8.7	25
8.6	24
8.5	22
8.4	21
8.3	20
8.2	19
8.1	17
8.0	16
7.9-7.7	14
7.6-7.5	13
7.4-7.2	12
7.1-6.9	11
6.8-6.6	10
6.5-6.3	9
6.2-6.0	8
5.9-5.7	7
5.6-5.5	6
5.4-5.2	5
5.1-5.0	4
4.9-4.8	3
4.7-4.5	2
4.4-4.3	1
4.2 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
8.2-8.0	41
7.9	40
7.8	39
7.7	38
7.6	37
7.5	36
7.4	35
7.3	34
7.2	33
7.1	31
7.0	30
6.9	29
6.8	27
6.7	24
6.6	21
6.5	19
6.4	16
6.3	14
6.2	11
6.1	9
6.0	6
5.9-5.8	3
5.7-5.5	2
5.4-5.2	1
5.1 and Below	Under 1

END-YEAR NORMS

END-YEAR STATISTICS (.7)

WIDE RANGE ACHIEVEMENT TEST

RANDOM SAMPLE

GRADE	READING				SPELLING				ARITHMETIC	
LEVEL	$\overline{X}$	s	$\overline{X}$Gs	sGs	$\overline{X}$	s	$\overline{X}$Gs	sGs	$\overline{X}$	s
1	2.19	.84	1.54	1.20	2.16	.07	1.31	1.27	2.23	.30
2	3.92	1.32	4.38	2.57	3.30	.94	1.42	1.04	2.75	.59
3	5.35	2.50	3.40	4.31	4.46	1.36	1.30	1.14	4.30	.52
4	6.25	2.24	4.52	2.73	5.00	1.13	3.00	1.99	4.57	.59
5	7.20	2.05	5.58	3.31	6.16	1.53	2.73	2.01	5.61	.91
6	7.50	2.23	5.76	3.78	6.49	1.74	3.32	2.75	5.98	1.15
7	10.77	3.81	7.15	3.54	8.40	2.22	3.95	1.81	7.99	2.07
8	10.07	2.69	6.49	3.28	9.40	1.61	5.04	1.51	9.00	1.80
9	10.91	2.57	5.63	2.65	9.83	1.80	6.09	2.33	8.86	2.47
10	13.40	3.51	7.07	3.34	10.05	2.28	6.01	2.40	9.03	1.90
11	12.61	3.96	6.45	2.99	10.48	2.68	5.85	3.21	9.95	3.13
12	12.44	3.18	5.72	2.93	10.82	2.31	5.55	2.47	9.38	1.97

$\overline{X}$: Mean (Average Score)

s : Standard Deviation

$\overline{X}$Gs : Mean Grade Span (Average Grade Span)

sGs : Standard Deviation of Grade Span

For example, the average 3rd grader received a reading score of 5.3 or 5.4, and measured about 3.4 years between the basal and maximal score on Reading. Sixty-seven percent of the 3rd graders had reading scores between 2.8 and 7.8. (Use the same approach to analyse the Spelling scores and Arithmetic scores.)

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 1

READING

Gr. Score	Percentile
4.3-4.1	99
4.0	98
3.9-3.8	97
3.7	96
3.6	95
3.5	94
3.4	93
3.3	92
3.2	90
3.1	89
3.0	86
2.9	83
2.8	79
2.7	78
2.6	77
2.5	75
2.4	72
2.3	69
2.2	65
2.1	56
2.0	46
1.9	37
1.8	33
1.7	30
1.6	27
1.5	24
1.4	22
1.3	18
1.2	16
1.1	13
1.0	10
K.9	9
K.8-K.7	8
K.6-K.5	7
K.4	6
K.3	5
K.2	3
K.1	1
K.0 and below	Under 1

SPELLING

Gr. Score	Percentile
3.0	99
2.9	93
2.8	92
2.7	89
2.6	79
2.5	72
2.4	65
2.3	58
2.2	48
2.1	42
2.0	37
1.9	36
1.8	34
1.7	27
1.6	22
1.5	17
1.4	13
1.3	11
1.2	10
1.1	5
1.0	1
K.9 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
2.8	99
2.7	96
2.6	94
2.5	91
2.4	89
2.3	67
2.2	45
2.1	25
2.0	23
1.9	20
1.8	10
1.7	8
1.6	6
1.5	5
1.4	3
1.3	2
1.2	1
1.1 and Below	Under 1

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 2

READING

Gr. Score	Percentile
7.5 & Up	99
7.4-7.3	98
7.2	97
7.1-7.0	96
6.9-6.8	95
6.7	94
6.6-6.5	93
6.4-6.3	92
6.2-6.0	91
5.9-5.7	90
5.6-5.4	89
5.3-5.2	88
5.1	87
5.0	86
4.9	85
4.8	84
4.7	83
4.6	81
4.5	77
4.4	71
4.3	66
4.2	65
4.1	64
4.0	62
3.9	56
3.8	50
3.7	44
3.6	42
3.5	39
3.4	36
3.3	34
3.2	32
3.1	29
3.0	27
2.9	24
2.8	22
2.7	20
2.6	17
2.5	14
2.4	12
2.3	10
2.2	7
2.1	6
2.0	5
1.9	3
1.8	2
1.7	1
1.6 and Below	Under 1

SPELLING

Gr. Score	Percentile
5.5	99
5.4	97
5.3	95
5.2	92
5.1	91
5.0	89
4.9-4.8	88
4.7-4.5	87
4.4-4.2	86
4.1-4.0	85
3.9	84
3.8	82
3.7	81
3.6	77
3.5	73
3.4	68
3.3	64
3.2	60
3.1	55
3.0	48
2.9	40
2.8	33
2.7	28
2.6	23
2.5	19
2.4	16
2.3	13
2.2	11
2.1	4
2.0	1
1.9 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
3.9	99
3.8	96
3.7	94
3.6	92
3.5	90
3.4	89
3.3	87
3.2	85
3.1	78
3.0	70
2.9	61
2.8	51
2.7	44
2.6	37
2.5	36
2.4	35
2.3	34
2.2	33
2.1	20
2.0	14
1.9	11
1.8	10
1.7	8
1.6	7
1.5	6
1.4	5
1.3	4
1,2	2
1.1	1
1.0 and Below	Under 1

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 3

READING

Gr. Score	Percentile
11.4-11.0	99
10.9-10.6	98
10.5-10.2	97
10.1- 9.9	96
9.8	95
9.7- 9.6	94
9.5	93
9.4	92
9.3	91
9.2- 9.1	90
9.0	89
8.9	88
8.8	87
8.7- 8.6	86
8.5	85
8.4	84
8.3- 8.2	83
8.1	82
8.0	81
7.9	80
7.8- 7.7	79
7.6	78
7.5	77
7.4	76
7.3- 7.2	75
7.1	74
7.0- 6.9	73
6.8	72
6.7	71
6.6- 6.5	70
6.4	69
6.3	68
6.2- 6.1	67
6.0	66
5.9	65
5.8	64
5.7- 5.6	63
5.5	62
5.4	61
5.3- 5.2	60
5.1	59
5.0	58
4.9	57
4.8	56
4.7	54
4.6	53
4.5	51

SPELLING

Gr. Score	Percentile
12.9-11.2	99
11.1- 9.6	98
9.5- 7.7	97
7.6- 6.4	96
6.3	94
6.2	93
6.1	91
6.0	90
5.9	88
5.8	85
5.7	82
5.6	79
5.5	76
5.4	73
5.3	71
5.2	70
5.1	68
5.0	66
4.9	65
4.8	64
4.7- 4.6	63
4.5	62
4.4	61
4.3	60
4.2	58
4.1	57
4.0	55
3.9	53
3.8	50
3.7	47
3.6	43
3.5	40
3.4	37
3.3	33
3.2	30
3.1	26
3.0	23
2.9	19
2.8	18
2.7	16
2.6	14
2.5	13
2.4	11
2.3- 2.2	10
2.1	9
2.0	8
1.9	7

ARITHMETIC

Gr. Score	Percentile
6.1-5.9	99
5.8-5.7	98
5.6-5.4	97
5.3-5.2	96
5.1	92
5.0	88
4.9	84
4.8	81
4.7	77
4.6	73
4.5	68
4.4	62
4.3	57
4.2	51
4.1	44
4.0	38
3.9	30
3.8	21
3.7	12
3.6	8
3.5	6
3.4	3
3.3	2
3.2	1
3.1 and Below	Under 1

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 3 (Contd)

READING	
Gr. Score	Percentile
4.4	50
4.3	48
4.2	47
4.1	45
4.0	44
3.9	42
3.8	39
3.7	36
3.6	33
3.5	30
3.4	26
3.3	23
3.2	21
3.1	18
3.0	15
2.9	11
2.8	10
2.7	8
2.6	7
2.5	5
2.4	3
2.3	2
2.2	1
2.1 and Below	Under 1

SPELLING	
Gr. Score	Percentile
1.8-1.7	6
1.6	5
1.5	4
1.4	3
1.3	2
1.2-1.1	1
1.0 and Below	Under 1

ARITHMETIC	
Gr. Score	Percentile

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 4

READING

Gr. Score	Percentile
12.8 & Up	99
12.7-11.9	98
11.8-11.0	97
10.9-10.2	96
10.1	95
10.0	94
9.9	93
9.8- 9.7	92
9.6- 9.5	91
9.4- 9.2	90
9.1- 9.0	89
8.9- 8.7	88
8.6- 8.5	87
8.4- 8.2	86
8.1- 8.0	85
7.9- 7.7	84
7.6	83
7.5	82
7.4	81
7.3	80
7.2	79
7.1	78
7.0	75
6.9	73
6.8	70
6.7	68
6.6	66
6.5	65
6.4	63
6.3	61
6.2	60
6.1	58
6.0	56
5.9	55
5.8	53
5.7	52
5.6	50
5.5	48
5.4	47
5.3	45
5.2	44
5.1	40
5.0	36
4.9	32
4.8	28

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SPELLING

Gr. Score	Percentile
6.9	99
6.8	97
6.7	94
6.6	92
6.5	90
6.4	89
6.3	88
6.2	86
6.1	85
6.0	84
5.9	80
5.8	76
5.7	72
5.6	68
5.5	64
5.4	60
5.3	57
5.2	54
5.1	52
5.0	50
4.9	49
4.8	48
4.7	44
4.6	40
4.5	36
4.4	33
4.3	30
4.2	28
4.1	26
4.0	24
3.9	23
3.8	21
3.7	19
3.6	18
3.5	16
3.4	14
3.3	13
3.2	11
3.1	10
3.0	8
2.9	6
2.8	5
2.7	4
2.6	3
2.5-2.4	2
2.3-2.2	1
2.1 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
5.9	99
5.8	97
5.7	95
5.6	92
5.5	90
5.4	89
5.3	88
5.2	81
5.1	75
5.0	68
4.9	61
4.8	53
4.7	44
4.6	42
4.5	40
4.4	38
4.3	36
4.2	34
4.1	32
4.0	27
3.9	24
3.8	20
3.7	19
3.6-3.5	18
3.4	17
3.3-3.2	16
3.1	14
3.0	13
2.9	12
2.8	10
2.7	9
2.6	8
2.5	6
2.4	5
2.3	4
2.2	2
2.1	1
2.0 and Below	Under 1

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 4 (Contd)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
4.7	24				
4.6	22				
4.5	20				
4.4	19				
4.3	17				
4.2	16				
4.1	13				
4.0	11				
3.9	9				
3.8	7				
3.7	4				
3.6	2				
3.5	1				
3.4 and Below	Under 1				

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 5

READING

Gr. Score	Percentile
12.3-12.1	99
12.0-11.8	98
11.7-11.5	97
11.4-11.2	96
11.1-11.0	95
10.9-10.8	94
10.7-10.6	93
10.5-10.3	92
10.2-10.1	91
10.0- 9.9	90
9.8- 9.7	89
9.6	88
9.5- 9.4	87
9.3	86
9.2	84
9.1	82
9.0	80
8.9	78
8.8- 8.6	75
8.5- 8.3	74
8.2- 8.0	73
7.9- 7.8	72
7.7	70
7.6	67
7.5	66
7.4	63
7.3	61
7.2	58
7.1	55
7.0	51
6.9	47
6.8	44
6.7	42
6.6	40
6.5	38
6.4	36
6.3	34
6.2	33
6.1	32
6.0	31
5.9	30
5.8	29
5.7	28
5.6	27
5.5	26
5.4	25
5.3	24

SPELLING

Gr. Score	Percentile
10.1-10.0	99
9.9- 9.8	98
9.7	97
9.6- 9.5	96
9.4	95
9.3- 9.2	94
9.1	93
9.0	92
8.9- 8.8	91
8.7	90
8.6- 8.5	89
8.4	88
8.3- 8.2	87
8.1	86
8.0	85
7.9- 7.8	84
7.7	83
7.6	82
7.5- 7.4	81
7.3	80
7.2- 7.1	79
7.0	78
6.9	76
6.8	75
6.7	74
6.6	72
6.5	69
6.4	67
6.3	64
6.2	61
6.1	58
6.0	55
5.9	52
5.8	48
5.7	45
5.6	41
5.5	38
5.4	34
5.3	31
5.2	28
5.1	24
5.0	21
4.9	18
4.8	14
4.7	11
4.6- 4.4	6
4.3- 4.2	5

ARITHMETIC

Gr. Score	Percentile
7.7	99
7.6	98
7.5	97
7.4	96
7.3	94
7.2	92
7.1	89
7.0	88
6.9	87
6.8	86
6.7	85
6.6	84
6.5	82
6.4	81
6.3	80
6.2	79
6.1	78
6.0	77
5.9	75
5.8	68
5.7	61
5.6	55
5.5	52
5.4	50
5.3	48
5.2	42
5.1	35
5.0	27
4.9	24
4.8	20
4.7	17
4.6	14
4.5	10
4.4	6
4.3	5
4.2	3
4.1	1
4.0 and Below	Under 1

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 5 (Contd)

READING

Gr. Score	Percentile
5.2	22
5.1	20
5.0	18
4.9	15
4.8	13
4.7	12
4.6	10
4.5	8
4.4	6
4.3	5
4.2	3
4.1	1
4.0 and Below	Under 1

SPELLING

Gr. Score	Percentile
4.1-3.9	4
3.8-3.7	3
3.6	1
3.5 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 6

READING

Gr. Score	Percentile
16.3-14.7	99
14.6-13.2	98
13.1-11.7	97
11.6-10.7	96
10.6-10.4	95
10.3-10.2	94
10.1- 9.9	93
9.8- 9.7	92
9.6	91
9.5	90
9.4- 9.3	89
9.2	88
9.1- 9.0	87
8.9- 8.8	86
8.7	85
8.6	84
8.5- 8.4	83
8.3	82
8.2	78
8.1	73
8.0	68
7.9	62
7.8	57
7.7	55
7.6	54
7.5	53
7.4	51
7.3	50
7.2	48
7.1	46
7.0	43
6.9	41
6.8	39
6.7	37
6.6	36
6.5	34
6.4	32
6.3	30
6.2	28
6.1	26
6.0	24
5.9	23
5.8	21
5.7	20
5.6	18
5.5	17
5.4	15

SPELLING

Gr. Score	Percentile
10.2-10.1	99
10.0	98
9.9- 9.8	97
9.7	96
9.6	95
9.5	93
9.4	92
9.3	90
9.2	89
9.1	88
9.0- 8.9	87
8.8	86
8.7- 8.6	85
8.5	84
8.4	83
8.3- 8.2	82
8.1	80
8.0	79
7.9	77
7.8	76
7.7	75
7.6	73
7.5	72
7.4	70
7.3	69
7.2	67
7.1	65
7.0	63
6.9	61
6.8	59
6.7	57
6.6	56
6.5	54
6.4	53
6.3	51
6.2	50
6.1	49
6.0	48
5.9- 5.8	47
5.7	46
5.6	44
5.5	42
5.4	40
5.3	37
5.2	35
5.1	32
5.0	28

ARITHMETIC

Gr. Score	Percentile
8.8- 8.5	99
8.4- 8.2	98
8.1- 8.0	97
7.9- 7.8	96
7.7	95
7.6	93
7.5	92
7.4	90
7.3	89
7.2	86
7.1	83
7.0	80
6.9	77
6.8	75
6.7	71
6.6	68
6.5	64
6.4	60
6.3	57
6.2	55
6.1	53
6.0	50
5.9	48
5.8	46
5.7	45
5.6	43
5.5	42
5.4	40
5.3	39
5.2	36
5.1	33
5.0	31
4.9	28
4.8	25
4.7	22
4.6	20
4.5	17
4.4	14
4.3	7
4.2	6
4.1	5
4.0	4
3.9	3
3.8	2
3.7	1
3.6 and Below	Under 1

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 6 (Contd)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
5.3	14	4.9	24		
5.2	13	4.8	20		
5.1	11	4.7	17		
5.0	10	4.6	14		
4.9	9	4.5	12		
4.8	7	4.4	10		
4.7	6	4.3	7		
4.6	5	4.2	5		
4.5	4	4.1	2		
4.4	3	4.0	1		
4.3	2	3.9 and Below	Under 1		
4.2	1				
4.1 and Below	Under 1				

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 7

READING

Gr. Score	Percentile
18.6-18.4	99
18.3-18.2	98
18.1	97
18.0-17.9	96
17.8-17.7	95
17.6-17.5	94
17.4-17.3	93
17.2-17.1	92
17.0-16.8	91
16.7-16.5	90
16.4-16.2	89
16.1-15.9	88
15.9-15.6	87
15.5-15.3	86
15.2-15.1	85
15.0	84
14.9	83
14.8	82
14.7	81
14.6	79
14.5	78
14.4-14.3	77
14.2-14.1	76
14.0-13.9	75
13.8-13.7	74
13.6-13.5	73
13.4	72
13.3-13.2	71
13.1-13.0	70
12.9	69
12.8	68
12.7	67
12.6	66
12.5	65
12.4	63
12.3-11.9	62
11.8-11.3	61
11.2-10.7	60
10.6-10.2	59
10.1	57
10.0	56
9.9	54
9.8	53
9.7	51
9.6	49
9.5	48
9.4	47

SPELLING

Gr. Score	Percentile
12.3-12.2	99
12.1	98
12.0	97
11.9	95
11.8	94
11.7	93
11.6	92
11.5	91
11.4	90
11.3	88
11.2	87
11.1	86
11.0	85
10.9	84
10.8	83
10.7	82
10.6	80
10.5	79
10.4	78
10.3	77
10.2	76
10.1	75
10.0	74
9.9	73
9.8	72
9.7	71
9.6	70
9.5	68
9.4	67
9.3- 9.2	66
9.1	65
9.0	64
8.9- 8.8	63
8.7	62
8.6	61
8.5- 8.4	60
8.3	59
8.2	58
8.1- 8.0	57
7.9	56
7.8	55
7.7	54
7.6	52
7.5	51
7.4	49
7.3	48
7.2	46

ARITHMETIC

Gr. Score	Percentile
13.3-13.2	99
13.1-13.0	98
12.9	97
12.8-12.6	96
12.5-12.3	95
12.2-11.9	94
11.8-11.5	93
11.4-11.3	92
11.2	91
11.1-11.0	90
10.9	89
10.8-10.7	88
10.6	87
10.5-10.4	86
10.3	85
10.2	84
10.1-10.0	83
9.9	82
9.8- 9.7	81
9.6- 9.5	80
9.4- 9.2	79
9.1- 8.9	78
8.8	77
8.7	75
8.6	73
8.5	71
8.4	69
8.3	66
8.2	64
8.1	62
8.0	60
7.9	57
7.8	55
7.7	54
7.6	52
7.5	51
7.4	50
7.3	48
7.2	45
7.1	42
7.0	39
6.9	36
6.8	33
6.7	31
6.6	29
6.5	27
6.4	24

END-YEAR 7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 7 (Contd)

READING

Gr. Score	Percentile
9.3	46
9.2- 9.1	45
9.0	44
8.9	43
8.8	42
8.7	41
8.6- 8.5	40
8.4	39
8.3	38
8.2- 8.1	37
8.0	34
7.9	32
7.8	30
7.7	28
7.6	26
7.5	24
7.4	22
7.3	21
7.2	20
7.1	18
7.0	17
6.9	16
6.8	15
6.7	14
6.6	13
6.5	11
6.4	10
6.3	8
6.2	7
6.1	5
6.0- 5.8	3
5.7- 5.6	2
5.5- 5.3	1
5.2 and Below	Under 1

SPELLING

Gr. Score	Percentile
7.1	44
7.0	41
6.9	39
6.8	37
6.7	33
6.6	28
6.5	24
6.4	19
6.3	14
6.2	13
6.1	11
6.0	10
5.9	8
5.8	7
5.7- 5.6	6
5.5	5
5.4	4
5.3- 5.2	3
5.1- 5.0	2
4.9- 4.7	1
4.6- and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
6.3	22
6.2	21
6.1	19
6.0	17
5.9	16
5.8	15
5.7	13
5.6	12
5.5	10
5.4	8
5.3	7
5.2	5
5.1	2
5.0	1
4.9 and Below	Under 1

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 8

READING

Gr. Score	Percentile
17.1-16.7	99
16.6-16.1	98
16.0-15.6	97
15.5-15.0	96
14.9	95
14.8-14.7	94
14.6-14.5	93
14.4-14.3	92
14.2	91
14.1	90
14.0-13.9	89
13.8	88
13.7-13.6	87
13.5	86
13.4-13.3	85
13.2	84
13.1-13.0	83
12.9	82
12.8-12.7	81
12.6-12.5	80
12.4	79
12.3-12.2	78
12.1	77
12.0	76
11.9	75
11.8	74
11.7	73
11.6	72
11.5	71
11.4	70
11.3	69
11.2	68
11.1	67
11.0	66
10.9	65
10.8	64
10.7	62
10.6	61
10.5	60
10.4	59
10.3	58
10.2	57
10.1	56
10.0	54
9.9	52
9.8	51
9.7	49

SPELLING

Gr. Score	Percentile
13.0-12.9	99
12.8	98
12.7	97
12.6-12.5	96
12.4-12.3	95
12.2-12.1	94
12.0-11.8	93
11.7-11.5	92
11.4	91
11.3	90
11.2	89
11.1-11.0	88
10.9	86
10.8	84
10.7	83
10.6	81
10.5	80
10.4	77
10.3	73
10.2	70
10.1	67
10.0	64
9.9	61
9.8	57
9.7	54
9.6	51
9.5	48
9.4	47
9.3	46
9.2	45
9.1- 9.0	44
8.9	41
8.8	37
8.7	34
8.6	31
8.5	28
8.4	25
8.3	23
8.2	21
8.1	18
8.0	16
7.9	15
7.8	14
7.7	13
7.6- 7.5	12
7.4- 7.3	11
7.2- 7.0	10

ARITHMETIC

Gr. Score	Percentile
13.1-13.0	99
12.9	98
12.8-12.7	97
12.6	96
12.5	94
12.4	93
12.3	91
12.2	89
12.1	88
12.0-11.6	87
11.5-11.1	86
11.0-10.6	85
10.5-10.1	84
10.0	81
9.9	78
9.8	75
9.7	72
9.6	68
9.5	66
9.4	65
9.3	63
9.2	61
9.1	60
9.0	59
8.9	58
8.8	57
8.7- 8.6	56
8.5	52
8.4	49
8.3	46
8.2	43
8.1	40
8.0	36
7.9	33
7.8	30
7.7	27
7.6	24
7.5	21
7.4	19
7.3	16
7.2	14
7.1	12
7.0	10
6.9	8
6.8	6
6.7	4
6.6	2

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 8 (Contd)

READING

Gr. Score	Percentile
9.6	47
9.5	46
9.4	44
9.3	42
9.2	41
9.1	40
9.0	39
8.9	38
8.8	37
8.7	36
8.6	33
8.5	30
8.4	28
8.3	25
8.2	21
8.1	19
8.0	16
7.9- 7.7	15
7.6- 7.3	14
7.2- 7.0	13
6.9- 6.6	12
6.5	11
6.4- 6.3	10
6.2- 6.1	9
6.0- 5.9	8
5.8	7
5.7- 5.6	6
5.5- 5.4	5
5.3- 5.2	4
5.1- 5.0	3
4.9	2
4.8- 4.7	1
4.6 and Below	Under 1

SPELLING

Gr. Score	Percentile
6.9- 6.8	9
6.7- 6.5	8
6.4	6
6.3	4
6.2	3
6.1	1
6.0 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
6.5	1
6.4 and Below	Under 1

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 9

READING

Gr. Score	Percentile
16.2-16.1	99
16.0	98
15.9-15.8	97
15.7	96
15.6	95
15.5-15.4	94
15.3	93
15.2	92
15.1-15.0	91
14.9-14.8	90
14.7-14.6	89
14.5-14.2	88
14.1-13.8	87
13.7-13.4	86
13.3-13.2	85
13.1	82
13.0	80
12.9	77
12.8	74
12.7	71
12.6-12.5	70
12.4	69
12.3-12.2	68
12.1	67
12.0	66
11.9-11.8	65
11.7	64
11.6	63
11.5-11.4	62
11.3	61
11.2	60
11.1-11.0	59
10.9	58
10.8-10.7	57
10.6	56
10.5	55
10.4-10.3	54
10.2	53
10.1	51
10.0	49
9.9	47
9.8	45
9.7	42
9.6	40
9.5	38
9.4	36
9.3	34

SPELLING

Gr. Score	Percentile
13.2-13.1	99
13.0-12.9	98
12.8	97
12.7	96
12.6	95
12.5	93
12.4	92
12.3	91
12.2	89
12.1	88
12.0-11.9	87
11.8	86
11.7	85
11.6	83
11.5	81
11.4	79
11.3	77
11.2	75
11.1	73
11.0	70
10.9	68
10.8	66
10.7	64
10.6	63
10.5-10.4	62
10.3	61
10.2	60
10.1	57
10.0	53
9.9	50
9.8	46
9.7	42
9.6- 9.5	41
9.4	40
9.3- 9.2	39
9.1	38
9.0	36
8.9	35
8.8	33
8.7	32
8.6	30
8.5	28
8.4	27
8.3	25
8.2	23
8.1	21
8.0	20

ARITHMETIC

Gr. Score	Percentile
14.7-14.6	99
14.5-14.4	98
14.3-14.2	97
14.1-14.0	96
13.9-13.8	95
13.7-13.6	94
13.5-13.4	93
13.3-13.2	92
13.1-13.0	91
12.9-12.8	90
12.7-12.6	89
12.5-12.4	88
12.3-12.2	87
12.1-12.0	86
11.9-11.7	85
11.6-11.5	84
11.4-11.3	83
11.2	82
11.1	81
11.0	80
10.9	79
10.8	78
10.7	77
10.6	76
10.5	75
10.4	74
10.3-10.2	72
10.1	71
10.0	69
9.9	68
9.8- 9.7	67
9.6- 9.5	66
9.4- 9.3	65
9.2- 9.1	64
9.0	63
8.9	62
8.8	61
8.7	60
8.6	59
8.5	58
8.4	57
8.3	56
8.2	52
8.1	49
8.0	47
7.9	44
7.8	41

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 9 (Contd)

READING

Gr. Score	Percentile
9.2	32
9.1	30
9.0	28
8.9	25
8.8	23
8.7	21
8.6	20
8.5	19
8.4	18
8.3- 8.2	17
8.1	16
8.0	15
7.9	14
7.8	13
7.7	12
7.6	11
7.5	10
7.4- 7.3	9
7.2	8
7.1	7
7.0	6
6.9	5
6.8	4
6.7- 6.6	3
6.5	2
6.4- 6.2	1
6.1 and Below	Under 1

SPELLING

Gr. Score	Percentile
7.9- 7.8	19
7.7	18
7.6	17
7.5- 7.4	16
7.3	15
7.2	14
7.1	12
7.0	10
6.9	8
6.8	6
6.7	4
6.6	2
6.5	1
6.4 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
7.7	39
7.6	36
7.5	34
7.4	31
7.3	29
7.2	26
7.1	24
7.0	21
6.9	20
6.8	18
6.7	17
6.6	15
6.5	14
6.4	12
6.3	10
6.2	9
6.1	8
6.0	6
5.9	5
5.8	4
5.7	2
5.6	1
5.5 and Below	Under 1

END YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 10

READING

Gr. Score	Percentile
18.4	99
18.3	98
18.2	97
18.1	96
18.0	95
17.9	93
17.8	92
17.7	91
17.6	89
17.5	88
17.4	86
17.3	85
17.2	83
17.1	82
17.0	80
16.9	79
16.8	77
16.7	75
16.6	74
16.5-16.4	73
16.3-16.1	72
16.0-15.9	71
15.8-15.7	70
15.6-15.4	69
15.3-15.2	68
15.1-15.0	67
14.9-14.8	66
14.7	65
14.6	64
14.5	63
14.4	61
14.3	60
14.2	59
14.1	58
14.0	56
13.9	55
13.8	54
13.7	53
13.6	52
13.5	50
13.4	49
13.3	48
13.2	47
13.1	45
13.0	44
12.9	42
12.8	40

SPELLING

Gr. Score	Percentile
14.7-14.4	99
14.3-13.9	98
13.8-13.6	97
13.5-13.3	96
13.2-13.1	95
13.0-12.9	94
12.8-12.7	93
12.6	92
12.5	90
12.4	87
12.3	84
12.2	82
12.1	79
12.0	76
11.9	74
11.8	72
11.7	70
11.6	69
11.5	67
11.4	66
11.3	64
11.2	62
11.1	61
11.0	59
10.9	57
10.8	56
10.7	54
10.6	53
10.5-10.4	51
10.3-10.2	50
10.1-10.0	49
9.9- 9.8	48
9.7	46
9.6	44
9.5	42
9.4	40
9.3	37
9.2	35
9.1	33
9.0- 8.9	32
8.8- 8.7	31
8.6- 8.5	30
8.4	29
8.3	27
8.2	25
8.1	22
8.0	19

ARITHMETIC

Gr. Score	Percentile
12.7-12.6	99
12.5	98
12.4-12.3	97
12.2	96
12.1	94
12.0	93
11.9	92
11.8	90
11.7	89
11.6	87
11.5	86
11.4	84
11.3	83
11.2-11.1	81
11.0-10.9	80
10.8-10.6	79
10.5-10.4	78
10.3-10.2	77
10.1	74
10.0	72
9.9	69
9.8	66
9.7- 9.6	62
9.5	61
9.4- 9.3	60
9.2	59
9.1	57
9.0	55
8.9	53
8.8	51
8.7	48
8.6	46
8.5	44
8.4	41
8.3	39
8.2- 8.1	36
8.0	35
7.9	34
7.8- 7.7	33
7.6	30
7.5	27
7.4	24
7.3	22
7.2	18
7.1	17
7.0	15
6.9	14

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 10 (Contd)

READING

Gr. Score	Percentile
12.7	38
12.6	36
12.5	34
12.4	32
12.3	30
12.2	28
12.1-12.0	25
11.9-11.7	24
11.6-11.4	23
11.3-11.2	22
11.1-10.9	21
10.8-10.7	20
10.6-10.5	19
10.4-10.2	18
10.1-10.0	17
9.9- 9.8	16
9.7- 9.5	15
9.4- 9.0	14
8.9- 8.5	13
8.4- 8.0	12
7.9- 7.6	11
7.5- 7.3	10
7.2- 7.1	9
7.0- 6.9	8
6.8- 6.6	7
6.5- 6.4	6
6.3- 6.2	5
6.1- 6.0	4
5.9- 5.7	3
5.6- 5.5	2
5.4- 5.2	1
5.1 and Below	Under 1

SPELLING

Gr. Score	Percentile
7.9	17
7.8	14
7.7- 7.6	11
7.5- 7.3	10
7.2- 7.0	9
6.9- 6.6	8
6.5- 6.2	7
6.1- 5.8	6
5.7- 5.5	5
5.4- 5.1	4
5.0- 4.8	3
4.7- 4.5	2
4.4- 4.2	1
4.1 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
6.8	12
6.7	11
6.6	9
6.5	8
6.4	6
6.3	5
6.2	3
6.1	1
6.0 and Below	Under 1

END YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 11

READING

Gr. Score	Percentile
18.8-18.7	99
18.6	98
18.5	97
18.4	96
18.3	94
18.2	93
18.1	92
18.0	91
17.9	90
17.8	89
17.7	88
17.6	87
17.5	86
17.4	85
17.3-17.2	84
17.1-17.0	83
16.9-16.8	82
16.7-16.5	81
16.4-16.2	80
16.1-15.9	79
15.8-15.5	78
15.4-15.3	77
15.2	75
15.1	72
15.0	70
14.9	67
14.8	64
14.7	62
14.6	59
14.5-14.4	58
14.3-14.2	57
14.1-14.0	56
13.9-13.8	55
13.7	54
13.6-13.5	53
13.4-13.3	52
13.2-13.1	51
13.0-12.9	50
12.8-12.7	49
12.6-12.5	48
12.4	47
12.3-12.2	46
12.1-12.0	45
11.9-11.8	44
11.7-11.6	43
11.5-11.4	42
11.3-11.2	41

SPELLING

Gr. Score	Percentile
15.2-15.0	99
14.9-14.8	98
14.7	97
14.6-14.5	96
14.4-14.3	95
14.2-14.1	94
14.0-13.9	93
13.8	92
13.7	90
13.6	89
13.5	87
13.4	86
13.3	84
13.2	83
13.1-13.0	81
12.9	80
12.8-12.7	79
12.6-12.5	78
12.4	77
12.3	74
12.2	71
12.1	68
12.0	65
11.9	62
11.8	58
11.7	55
11.6	54
11.5	53
11.4	52
11.3	51
11.2	50
11.1	49
11.0	48
10.9-10.8	47
10.7-10.6	46
10.5-10.4	45
10.3	44
10.2-10.1	43
10.0- 9.9	42
9.8- 9.7	41
9.6	40
9.5	38
9.4	37
9.3	35
9.2	34
9.1	32
9.0	31

ARITHMETIC

Gr. Score	Percentile
19.5-19.3	99
19.2-19.0	98
18.9-18.8	97
18.7-18.2	96
18.1-17.0	95
16.9-15.8	94
15.7-14.6	93
14.5-14.0	92
13.9	91
13.8-13.7	90
13.6-13.5	89
13.4	88
13.3-13.2	87
13.1	86
13.0-12.9	85
12.8	84
12.7-12.6	83
12.5-12.4	82
12.3	81
12.2	80
12.1	79
12.0	78
11.9	76
11.8	75
11.7	74
11.6	72
11.5	71
11.4	70
11.3	69
11.2-11.1	68
11.0	67
10.9	66
10.8	65
10.7	64
10.6-10.5	63
10.4	62
10.3	61
10.2	60
10.1-10.0	59
9.9	58
9.8	57
9.7	56
9.6	55
9.5- 9.4	54
9.3	53
9.2	52
9.1	51

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 11 (Contd)

READING

Gr. Score	Percentile
11.1-11.0	40
10.9-10.8	39
10.7-10.6	38
10.5-10.4	37
10.3	35
10.2	34
10.1	33
10.0	32
9.9	31
9.8	30
9.7	29
9.6	28
9.5	27
9.4	26
9.3	25
9.2	24
9.1	23
9.0	22
8.9- 8.8	21
8.7- 8.6	20
8.5- 8.4	19
8.3- 8.2	18
8.1- 8.0	17
7.9	16
7.8- 7.7	15
7.6- 7.5	14
7.4- 7.3	13
7.2- 7.1	12
7.0- 6.9	11
6.8	10
6.7	9
6.6	8
6.5	7
6.4	6
6.3	5
6.2- 6.1	3
6.0- 5.9	2
5.8- 5.7	1
5.6 and Below	Under 1

SPELLING

Gr. Score	Percentile
8.9	29
8.8- 8.7	28
8.6- 8.5	27
8.4- 8.3	26
8.2	25
8.1	24
8.0	23
7.9	22
7.8	21
7.7	20
7.6	19
7.5	18
7.4	17
7.3	16
7.2	15
7.1	14
7.0	13
6.9	12
6.8	11
6.7- 6.6	10
6.5- 6.4	9
6.3	8
6.2- 6.1	7
6.0	6
5.9	4
5.8	3
5.7	2
5.6	1
5.5 and Below	Under 1

ARITHMETIC

Gr. Score	Percentile
9.0	50
8.9- 8.8	49
8.7	48
8.6	47
8.5	46
8.4- 8.3	45
8.2	44
8.1	43
8.0	42
7.9	41
7.8	40
7.7	38
7.6	37
7.5	35
7.4	33
7.3	32
7.2	30
7.1	29
7.0	27
6.9	25
6.8	23
6.7	20
6.6	17
6.5	14
6.4	11
6.3	8
6.2	5
6.1	2
6.0	1
5.9 and Below	Under 1

END YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 12

READING

Gr. Score	Percentile
18.4	99
18.3	98
18.2	96
18.1	95
18.0	93
17.9	92
17.8	90
17.7-17.6	88
17.5-17.4	87
17.3-17.2	86
17.1-17.0	85
16.9-16.8	84
16.7-16.6	83
16.5	82
16.4-16.3	81
16.2	80
16.1	78
16.0	77
15.9	75
15.8	74
15.7	72
15.6-15.4	70
15.3-15.1	69
15.0-14.7	68
14.6-14.4	67
14.3-14.1	66
14.0	65
13.9-13.8	64
13.7-13.6	63
13.5	62
13.4	61
13.3	60
13.2	59
13.1	58
13.0	57
12.9	56
12.8	55
12.7	54
12.6	53
12.5	51
12.4	50
12.3	48
12.2	47
12.1	46
12.0	44
11.9	43
11.8	42

SPELLING

Gr. Score	Percentile
16.7-16.2	99
16.1-15.7	98
15.6-15.2	97
15.1-14.7	96
14.6-14.5	95
14.4-14.2	94
14.1-14.0	93
13.9-13.7	92
13.6	91
13.5	90
13.4	89
13.3-13.2	88
13.1	87
13.0	86
12.9	85
12.8-12.7	84
12.6	82
12.5	80
12.4	79
12.3	77
12.2	76
12.1	74
12.0	73
11.9	71
11.8	69
11.7	68
11.6	66
11.5	65
11.4	63
11.3	61
11.2	60
11.1	57
11.0	54
10.9	51
10.8	47
10.7	44
10.6	42
10.5	40
10.4	39
10.3	37
10.2	36
10.1	34
10.0	33
9.9	31
9.8	29
9.7	28
9.6	27

ARITHMETIC

Gr. Score	Percentile
13.4-13.2	99
13.1-12.9	98
12.8-12.7	97
12.6-12.4	96
12.3	94
12.2	93
12.1	91
12.0	89
11.9	88
11.8	87
11.7	86
11.6-11.5	85
11.4	84
11.3	82
11.2	80
11.1	79
11.0	77
10.9	78
10.8	74
10.7	73
10.6	71
10.5	70
10.4	68
10.3	65
10.2	63
10.1	81
10.0	58
9.9	56
9.8	53
9.7	51
9.6	48
9.5	46
9.4	44
9.3- 9.2	43
9.1- 8.9	42
8.8- 8.7	41
8.6- 8.4	40
8.3	38
8.2	36
8.1	35
8.0	33
7.9	32
7.8	31
7.7	30
7.6	29
7.5- 7.4	28
7.3	25

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 12 (Contd)

READING	
Gr. Score	Percentile
11.7	41
11.6	39
11.5	38
11.4	37
11.3	36
11.2	35
11.1	34
11.0	33
10.9	32
10.8	31
10.7	29
10.6	28
10.5-10.4	27
10.3	26
10.2	25
10.1	24
10.0- 9.9	23
9.8	22
9.7	21
9.6- 9.5	20
9.4	19
9.3	18
9.2	17
9.1	16
9.0	15
8.9	14
8.8	13
8.7	12
8.6- 8.5	11
8.4	10
8.3- 8.2	9
8.1- 8.0	8
7.9- 7.8	7
7.7- 7.6	6
7.5- 7.4	5
7.3	4
7.2- 7.1	3
7.0- 6.9	2
6.8- 6.7	1
6.6 and Below	Under 1

SPELLING	
Gr. Score	Percentile
9.5	26
9.4	25
9.3- 9.2	24
9.1	23
9.0	22
8.9	21
8.8- 8.7	20
8.6	19
8.5	18
8.4	17
8.3- 8.2	16
8.1	15
8.0	14
7.9	13
7.8- 7.7	12
7.6	11
7.5	10
7.4	9
7.3- 7.2	8
7.1	7
7.0	5
6.9	4
6.8	3
6.7	2
6.6	1
6.5 and Below	Under 1

ARITHMETIC	
Gr. Score	Percentile
7.2	21
7.1	18
7.0	15
6.9	12
6.8	8
6.7	5
6.6	2
6.5	1
6.4 and Below	Under 1

APPENDIX

APPENDIX

GEOGRAPHIC CHARACTERISTICS

TOWN	SQUARE MILES OF AREA	MILES OF PAVED ST. ROADS	MILES OF PAVED TOWN ROADS	MILES OF UNIMPROVED ROADS	PRINCIPAL INDUSTRIES
Barkhamsted	38.9	27.50	36.49	1.14	Agriculture
Colebrook	33.5	16.42	29.44	10.94	Agriculture
Hartland	33.7	23.80	22.50	.26	Agriculture
New Hartford	37.4	19.49	52.35	15.38	Agriculture Small Manufacturing
Norfolk	46.0	18.37	40.14	15.57	Agriculture, Summer Resort
Winchester	36.0	23.16	69.89	12.56	Small Manufacture

The above data obtained from The Connecticut State Highway Department, and/or The Town Clerk, 1st Selectman, or Street Department Superintendent of the involved Towns.

FUNDING DATA FOR PUBLIC EDUCATION IN THE SIX TOWN REGION

TOWN	NET GRAND LIST OCT. 1, 1964	INDEBTEDNESS JAN. 1, 1965	POPULATION ESTIMATE	PER PUPIL COST (INC. TRANS.)	PER PUPIL TRANS.COST
Barkhamsted	$ 3,992,810	$ 150,000	1,700	$576.11	$47.66
Colebrook	4,290,281	10,000	830	524.32	45.60
Hartland	4,206,385	160,000	1,100	529.65	68.36
New Hartford	13,269,250	205,000	3,300	529.65	32.75
Norfolk	7,919,907	180,000	1,900	578.31	33.51
Winchester) City of Winsted)	39,375,850 28,992,720	1,519,000) 1,793,000)	11,000	460.17	15.64

Data for this chart from Register and Manual, Connecticut, 1965.

APPENDIX

DISTRIBUTION OF STAFF AND PUPIL POPULATION IN THE SIX TOWNS COVERED

	TOTAL STAFF	ELEMENTARY PUPILS	SECONDARY PUPILS	TOTAL PUPILS
Public School	152	3,132	1,171	4,303
Nonpublic School	54	479	603	1,082
Total	206	3,611	1,774	5,385